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## Academic Health Centers for the 21st Century: Will We Have the Faculty We Need?

*Clyde H. Evans, Ph.D.*

*Clyde H. Evans, Ph.D., Vice President of the Association of Academic Health Centers, presented the Keynote Address for the Models that Work Conference. In this address, Dr. Evans eloquently describes the urgent need for medical schools to support the continuous training of their faculties. He asks the question: "...Will the faculty for the 21st century 'look like' the faculty from the 20th century?" He then starkly describes the conditions of rapid, incessant paradigm shifts that are transforming the world of academic medicine. In such a world, success will be dependent upon developing both the vision and the means to adapt and to support our faculties. In his closing comments about how we will be able to have the kind of faculty we need and deserve, he quotes the German philosopher Schopenhauer: "Thus, the task is not so much to see what no one else had seen, but to think what nobody yet has thought about that which everybody sees."*

I will begin with a truism: we will definitely need faculty in the 21<sup>st</sup> century, for without faculty, there would be no one to teach the next generation of physicians, no one to find cures for disease, no one to care for those suffering the burdens of illness. That implies the need to develop, train and nurture those faculty members needed in the front will the faculty for the 21<sup>st</sup> century "look like" the faculty from the 20<sup>th</sup> century?

Compare the recent observations that over the last decade or so the skills needed for successful deans have been drastically changing. Why? Because the institutions and the environment deans are expected to lead have changed dramatically enough that the abilities and attributes needed to lead have

likewise changed. In the past, selection committees could look almost exclusively at scholarly skills and scientific publications. Today they look much more closely at leadership, management, fiscal, political, and interpersonal skills.

If we were organizing a conference on dean development instead of faculty development, we would be very aware that we could not prepare our future deans with the same skill set that past deans had. Furthermore, we would look very carefully at the world in which future deans will be functioning, to try to figure out what "tools" they will need to be successful. Might it be the same with faculty?

In each of the arenas of faculty expertise—education, research, and clinical care—life is radically changing. Faculty, just like deans, must change in radical ways, in order to keep up. Three quick examples will make this point. Recall in the early 90s how primary care experienced a big resurgence as a result of the rise of managed care and the talk of health care reform. We quickly realized, however, that many of our academic health centers, especially those with name recognition, had neither the faculty nor the curriculum to teach primary care. Secondly, we began to notice that the bulk of everyday patient care had long since moved out of hospitals into the ambulatory arena, yet our education and training sites were still hospital-based. Finally, right under our noses, the action has already begun to move even beyond the ambulatory arena into alternative therapies and to the Internet.

The message is clear: the world is drastically

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changing in both education and clinical care. If faculty are to play not only a vital role, but also a leadership role, then like any good leader we'd better figure out which direction the crowd is going and then rush to get in front of it. Understanding all this is critical for anyone concerned about and involved with faculty development.

Earlier this year, Wilkerson and Irby described a Comprehensive Approach to Faculty Development, in which they argued that new faculty must be "socialized into the academic profession."<sup>1</sup> This socialization entails:

- Enhancing Identification
- Understanding the values, norms and expectations of faculty, particularly as teachers
- Understanding the full range of academic responsibilities
- Understanding the steps for academic advancement
- Developing the skills of scholarship as defined by that institution
- Establishing a network of colleagues

The next 1 1/2 days will be devoted to the specific, concrete, practical nuts-and-bolts of faculty development of what that socialization entails. In my remarks this evening, I will try to set the stage for what is coming in the next day and a half by focusing on the **big picture** within which faculty development is embedded. That will help us ascertain what the "it" is to which new faculty must be socialized. So, why is looking at the big picture not only **worthwhile** but even **necessary**?

Let me begin with a personal story. In April 1996 I was serving as a consultant at an academic health center that included schools of medicine, nursing, public health, allied health professions. This institution was engaged in a wide range of creative activities, including: faculty development workshops; annual career planning sessions between faculty and department chairs; alternative faculty ladders; common criteria for promotion and tenure

across all colleges; performance-based evaluations; and mission-based resource allocation.

The name of that institution was Allegheny University of the Health Sciences, an institution that declared chapter 11 bankruptcy in summer 1998. Although it is not strictly applicable to the Allegheny situation, I must admit that when I recall all the innovative, cutting-edge activities taking place at Allegheny at that time, I am reminded of the old chestnut about rearranging the deck chairs on the Titanic.

The moral of this story is very clear to me: faculty development is **indeed** embedded within the larger changes taking place within academic health centers and beyond. Thus, no matter how creative our faculty development activities are, we can not ignore everything else going on around us. Nothing happens in a vacuum and what we do at the nuts and bolts level is not isolated from what is happening in the wider environment. Clearly our work at the nuts and bolts level must be shaped by these larger realities.

## Paradigm Shifts

I know this much is true: all of us at this conference have the luck of the draw to be living out the ancient Chinese curse: may you live in interesting times. I believe academic medicine is in the midst of deep paradigm shifts and is experiencing transformational forces. As a result, life in academic medicine is changing and is still not yet what it will become. Whenever we think about what things will become, it is worthwhile to remember the words of a well-known observer of academic medicine, Yogi Berra:

"The future ain't what it used to be."

While I am always wary about people telling us what the future will hold, I do believe we can look around and notice what is already happening right now. Let us take a look at some of the paradigm shifts and

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transformational forces that are shaping what academic medicine will become in the arenas of clinical care, research, and education.

<p><b>Table 1.</b> Significant Paradigm Shifts that affect Faculty Development Needs: The future ain't what it used to be:</p> <ul style="list-style-type: none"><li>• Changes in clinical care, education, research</li><li>• Changes in technology</li><li>• Shifts in management culture</li><li>• Changes in demographics – the baby boomers</li><li>• Increasing use of alternative therapies</li></ul>
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Clinical Care Medicine is perhaps unique among professions in the degree to which education for the profession is intertwined with the practice of the profession. One of the many consequences flowing from this is that radical change in the clinical world reverberates in the academic world. Dramatic changes are occurring because employers and the government are no longer willing to pay as much for health care. Through excellence in educating residents and fellows, academic health centers have trained competitors in the community.

As a result clinical revenues for institutions are going down. Incomes of individual clinicians are either decreasing or they are working longer and harder to earn same amount. Thus, there is less money to support academic activities. Even when there is money, faculty members have less time to engage in academic activities.

Not all the changes in the clinical arena harm the academic mission. We are seeing greater emphasis on care of populations, on cost-effective care, on actually managing the care we provide to patients, on health promotion and on enhancing the quality of the care we provide. Let's look at just one of those: quality. Does quality **really** matter?

Even if we had universal coverage for health care

and it cost only pennies to provide, we still would have serious problems in our health care system because of problems with quality.

Why is there a five-fold variation in mortality risk for common surgical procedures among hospitals in the same city? Why is one woman 3 times more likely than another woman to have a cesarean delivery just because she lives in one city rather than another? Which practice represents quality care? The truth is, we don't even know.

Even when we have data showing best outcomes, our system still manages, too often, to fail the people it serves. Failure to deliver quality care can be divided into the 3 categories listed below:

- Underuse (not getting the treatment that good medical science says you need)
- Overuse (getting treatment you don't need)
- Misuse (getting the right treatment, but having it "botched" in some way)

Consider only one disease (acute myocardial infarction) and only one type of quality failure, viz., underuse (the failure to provide appropriate use of aspirin or beta blockers).

This one type of failure to deliver quality care for one specific condition results in 18,000 preventable deaths each year. That is equivalent to a TWA flight 800 crash every 5 days.<sup>2</sup>

All of these examples represent changes in what we know about the quality of care provided and in the standards of quality we are prepared to accept— all of this making new and different demands on clinicians. Thus in the 21<sup>st</sup> century, we will need new kinds of faculty with new and different clinical skills—skills that we must make sure they learn. We cannot leave this learning to take place during medical school and residency. Much of this wasn't even known when you were a student or a resident. So this learning must be a part of faculty development, not medical school or residency. Does your faculty development program

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provide this kind of expertise to new faculty? Of course the changes are not restricted to the clinical arena.

In the research area, competition for funds is greater than ever while recovery of indirect costs has been reduced. It is harder for already stressed faculty to do research “on the side”, and increasingly difficult for MDs to compete with PhDs for research funds.

With these kinds of obstacles, it’s more critical than ever for faculty to identify the kinds of research they can do and that “buys” them something in their institution. As research becomes costlier to institutions, they will become increasingly “anal” about costs and research dollars per square foot generated. An example of this is that Rush-Presbyterian-St. Luke’s recently budgeted \$14M of its own money in order to be able to accept \$30M in outside grants.

## Education

Methods of medical education are also changing. We have problem-based learning, more small group interactions and computer-based learning. All are more labor intensive than traditional classroom teaching. Faculty thus must master new and different content while simultaneously mastering massive new process skills.

Teaching as we know it will be even more radically changed by technology. NYU recently created a for-profit subsidiary to develop continuing education courses on the Internet. How long will it be before some enterprising person does the same for microbiology? Not only are basic science faculty vulnerable to this kind of technological bombshell, radical changes are coming all for clinical teachers. Recently a faculty member at Johns Hopkins performed a kidney transplant. What’s new about that? The chief surgeon/faculty member was in Baltimore while the patient was in Singapore. Will we one day soon also be

able to teach even clinical skills at a distance?

Once again, these changes and trends imply potentially radical modifications in the role faculty will play, in skills required of faculty, and in the kinds of preparation and development they will need. Will your faculty development program meet this challenge? Will your faculty development program socialize new faculty into **this** version of the academic profession?

Does this sound like a crisis? I don’t want to come across as crying that the sky is falling. I don’t believe that. Remember the Chinese character for crisis consists of two separate characters: one for danger and one for opportunity. We face not just threats, but also face opportunities. Remember, we haven’t even talked about genomics, robotics, bioengineering, neuroscience, and other fields that hold mindboggling promise. Even for the threats themselves, the future not only ain’t what it used to be: it also is not written in stone. We can make choices and changes, informed by what we see around us, what we understand, and what we care about. Such changes offer the opportunity to make things better.

Most important in this context, is that we can change the way faculty is developed in order to better exploit the opportunities available. When we then inevitably discover all the unintended consequences of our enlightened and well-intentioned efforts and realize that we’ve usually made things both better **and** worse, well then we can just start all over again. At this point perhaps it would be helpful to recall the words of another well-known commentator: Woody Allen.

“The human race is at a crossroads: one road leads to total extinction; the other to utter horror and misery. Pray we have the wisdom to make the right choice.”

Just as faculty development is embedded within the larger reality of changes in academic health centers, so are academic health center changes

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embedded within larger social, economic, political, and cultural changes. Let's now examine a couple of these even larger shifts beyond academic health centers themselves.

### Paradigm Shifts in Management Culture

Edgar Schein has discussed what he calls the Three Cultures of Management.<sup>3</sup> **Executives** tend to focus on the financial survival of the institution, and run the organization more by use of hierarchy, rules and rituals than by personal relationships. **Engineers**, who in his terminology can be members of any profession who design and implement technical solutions to problems, feel they can and should master nature and prefer “people-free” solutions consisting of safe, precise, quantitatively defined processes. **Operators** are the people who actually implement the activities of the organization. Operators know that the world is unpredictable, you must use your own creativity, and in complex work, you must function together as a team. Consequently, operators value communication, the capacity to learn and the ability to deal with surprises.

In academic health centers, academic and hospital administrators are the **executives**; teachers and researchers are the **engineers**; and clinicians are the **operators**. Lack of alignment among executive, engineer and operator cultures in health care can be seen in the way in which the needs of primary care physicians (operators) to do health maintenance and illness prevention conflict with the engineering desire to save life at all costs and the executive desire to minimize costs no matter how this might constrain either the engineers or the operators. Schein argues that successful organizations must have members of the different cultures that value each other and communicate and work effectively with them across the cultural boundaries. In academic health centers that means we must bridge the gap between clinical practice, research, and organizational leadership.

Several obstacles make this a difficult challenge:

- Faculty members are traditionally low on solidarity, identifying more strongly with their disciplines than their university or employer.
- Faculty members are low on socialization and often are distant in their interpersonal relationships.
- University culture values narrowly specialized disciplines and individual intellectual achievement.
- Tension exists between traditional notions of academic freedom and accountability.

The question for us is: Will our faculty development programs develop sensitivity to these issues and can we develop skills to navigate them?

### Paradigm Shifts in Higher Education

American institutions of higher education essentially copied the Oxford-Cambridge model: a discrete campus (Oxford is actually a walled-in, protective enclosure), carefully selected faculty drawn from a limited supply of trained scholars, a library collection, and a selective student body. This model has been destroyed by two recent developments: the computer and the Internet. These two technological advances provide students with asynchronous access to enormous amounts of information and to faculty and each other, no matter where they are located.

The results of this technology are:

- “campus” need no longer be constrained physically or geographically
- faculty is no longer scarce resource
- library is no longer a collection of printed material, but rather a connection or gateway to the entire world
- students come in all shapes, sizes, needs, and schedules—including lifelong learning needs.

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## Paradigm Shifts in Technology

Consider the following new Internet technology. Palm-held devices now exist with which one can scan the bar code of an item in a store. The device then searches for all stores carrying the same item and can indicate which stores have the lowest prices. This capability amounts to a revolutionary change from the store saying: “here’s what I have to sell. Anyone want to buy?” to the consumer saying “here’s what I’m willing to buy. Anyone want to sell”? Power shifts from seller to buyer.

In health care, consider the following:

- Health care will increasingly be facing a generation that grew up with computers as a natural part of their learning experience.
- Health care is already facing a generation of consumers who will demand increasing information and control over their own health care.
- The best health status and outcomes correlate with information and income.
- As more computers are used in classrooms, teachers change from being dispensers of knowledge to coach and assistant. As more and more computers are used in health care, might the role of clinicians change from being a knowledge expert to something else?

In examining the future we must ask:

- How much health care delivery really needs to occur face-to-face between physicians and patients?
- What kinds of clinicians with what kinds of skills and what kinds of mindset will be needed in that future?

As consumers/patients have more technology, more information and take more control, the role

and skills of clinicians will also be **forced** to change. **Are we preparing our faculty to function in these new ways?**

## Baby Boomers

Boomers are like a Tsunami wave crashing across our society, leaving devastation of the old ways in its wake. Baby boomers are well educated, have more information than ever before, more money, and want convenience. Like everything else in our society, our health system in general, and academic health centers in particular, will be forced to accommodate that tidal wave. Other segments of the economy have already learned that lesson and made those accommodations. Consider the success achieved by Staples in providing the convenience of one-stop shopping and by respecting consumers to make their own informed decisions. One likely accommodation in our “industry” is that we can no longer organize ourselves according to what we have to offer (i.e., our internal expertise resulting in departments and subspecialties), but according to what the clients need and want.

This list of paradigm shifts and transformational forces is not intended to be comprehensive. It should be enough to make a compelling case for how the world we live and work in is changing in radical and fundamental ways—literally, being transformed before our very eyes.

Change itself leaves us off balance. Our human tendency is to immediately try to restore our equilibrium. For example, the more technological medicine and health care become, the more we reach out for more “human” alternatives.

Consider the following facts about alternative therapies:

- In the last year, Americans made nearly twice as many visits for alternative therapies as on all of primary care medicine

- The number of visits increased by nearly 50% in the last 7 years
- More than 4 out of 10 Americans took advantage of an alternative therapy in the last year
- Only 40% of people tell their primary care physicians
- Majority of people report making these visits as a way to prevent future illnesses
- Most of the costs of these visits is paid out of pocket
- Half the people using alternative therapies in the last year were 35-49 years of age

Modernism is represented by belief in science, rationality, deductive reasoning, objective observation, the belief in unending progress through industrialization, capitalism and materialism, and unending technological progress. There is also the sense that rationality and science alone are not enough to bring about the kind of society we want. People questioned the fundamental tenets of modernism. Thus we are in the postmodern era, the in-between times of uncertainty and ambiguity, caught between the incredible successes and the disappointing failures of modernism. Our entire society is caught between these cultural paradigms. Why should health care be spared? Let me give two examples to try to capture how this postmodern era is affecting the way we see the world.

A story is told of a certain rabbi, who had a reputation for great cleverness. Somehow, two people, holding in their opinion opposite views, appealed to him to resolve who is right. After hearing them out, the rabbi said: “You, Isaac, are right, and you Abraham, are also right.” When the unsatisfied disputants complained to the rabbi’s wife and asked her to use her influence and resolve the dispute, she told the rabbi: “I do not understand how you, being so clever, could admit that both were right, although they hold opposite views?” After thinking for awhile,

the rabbi answered: “You, too, are also right.”<sup>5</sup>

## Moxibustion

What would you say if I told you that we could avoid a breech delivery by burning herbs and chanting prayers? Although I threw in the part about chanting prayers for effect, I am not denying the power of prayer in healing. I just am not addressing that issue at the moment. The Eisenberg article quoted earlier reports studies that show that burning the herb *artemesia vulgaris* next to the toe of a pregnant woman indeed can often make a breech baby turn its head down. Now I don’t want to characterize as postmodern either this herbal intervention or the studies that document its effectiveness. Rather I offer it as yet another example of how our ways of thinking about the world are being expanded far beyond anything contemplated in our traditional modern, rationalistic, scientific worldview.

**What does all this mean for the future**—for institutions or for individual faculty—that is the focus of this conference?

Let me begin by acknowledging several things:

- It is hard to predict
- It is imprudent to sermonize
- Everything is tentative
- Nothing is definitive

First, let us take note that many predictions made five years ago were simply wrong: many pundits predicted that academic health centers, being up to 30% more costly than community hospitals, would be too bureaucratic and cumbersome to change and would be priced out of the rapidly changing market. In fact, many academic health centers are successfully innovating in response to outside forces and changes in the clinical arena. The danger is to lose sight of the academic mission of education and research.

The decrease in clinical revenues means the disappearance of traditional cross subsidizing. There-

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fore we must organize and manage around the missions of education, research, patient care:

- Effective mission management will still require someone at the top of the institution to integrate the three missions.
- Patient-centered health care will demand the optimal use of all health professionals, not just physicians. For example, if good data show that in certain situations the patient is better served by an obstetrician, then so be it. If data show other patients are better served by nurse midwives then so be it.
- Each academic center must have some kind of research mission.
- Academic health centers have special missions (i.e., produce social goods): education, research, specialized health care services, and a societal covenant of community service including care for the indigent, information/education outreach, health promotion.
- Productivity, accountability and performance-based evaluation will continue to be part of the landscape.
- Institutions must create alternative faculty ladders and faculty will have to more clearly define and focus their role(s).
- Institutions must find a way to preserve individual initiative and entrepreneurship while recognizing and rewarding institutional success, not solely individual success.
- Institutions must continue to decrease “silos” and faculty must learn to function across boundaries whether with surgeons and referring physicians in the community or with nurses and pharmacists or with families.

Does your faculty development program prepare faculty to function in a world like this?

## **Globalization**

When is the last time you treated measles or mumps or childhood meningitis or diphtheria or cholera or malaria in your clinic? Given that as many as 2 million people a day move across national boundaries, such world-wide scourges as these, although essentially eradicated in this country, are only a jet plane ride away. Microbes recognize no national boundaries. Also keep in mind the dangers of bioterrorism, environmental hazards, and contaminated food.

Another stunning example of globalization and what it means in human terms was recently given by Nils Daulaire, formerly senior health advisor for USAID and the new President of the Global Health Council. He reports that when he worked in a remote district of Nepal 15 years ago, he found a society virtually cut off from the rest of the world: it was literally 5 days walk to the nearest road. Today, despite its continued poverty, the same district headquarters is served by satellite telephone service that can be direct-dialed from any phone in the U.S. and satellite television reaches newly established privately owned village theaters. The moral of all this is clear: we can't live a healthy or safe life in a sick or dangerous world.

## **Health Care Reform**

Professor Uwe Reinhardt has asked the following question: “To the extent that our health system can make it possible, should the child of a gas station attendant have the same chance of a healthy life, and the same chance of a cure from a given illness, as does the child of a corporate executive?” With the demise of the Clinton health plan, we lost the dream of comprehensive health insurance and a single-tier health system in the U.S. for the time being. The lack of comprehensive health insurance is no trivial matter.

We know that lack of insurance reduces health status and health outcomes, and kills—by means of preventable deaths. We also know that we now

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have over 40 million uninsured people in this country, 10 million of them children. Compared to Canada and Europe, Americans have much less of a consensus on the social ethic that should govern the distribution of basic human services—like health care, education, or justice.

### Health vs. Health Care

Instead of talking about the health care system, suppose we were talking about the criminal justice system. If we were trying to create the best possible society, it would be madness to focus all our attention and resources on building the best possible prisons. Prisons are what you need only after things have gone wrong. The real goal is to have law-abiding citizens in a civil society. It is the same with health care. Health care is what we provide only after things have gone wrong. The real goal is to have a healthy population. Having a healthy population, however has relatively little to do with the health care system.

Consider the 1993 study, conducted in 50 countries that showed:

- There is no longer any correlation between life expectancies and the availability of doctors or hospitals
- There is still a correlation of health status and health outcomes with access to information and general prosperity.

The principle determinants of health have little or nothing to do with the medical care system. Health depends infinitely more on things like diet, physical activity, genetics, environment, behavior and lifestyle choices. We must prepare our future faculty to appreciate our larger goals and dreams and aspirations.

### Conclusion

*Three laborers were working side-by-side at a construction site. The first was asked: “what are you*

*doing?” The reply was “laying bricks”. The second was asked the same question. Reply: “earning a living for my family.” The third was asked the same question. Reply: “building a great cathedral.”*

For next two days you will be up to your elbows in the “bricks and mortar” of faculty development. Why bother with all the nuts and bolts, the nitty gritty details of learning how to lay bricks? Because if you did not, nothing would ever be built. It is still important to remember **why** we are building in the first place.

The German philosopher Schopenhauer said:

Thus, the task is not so much to see what no one else has seen, but to think what nobody yet has thought about that which everybody sees.

I believe that if you can look around at what is happening today, add your nuts-and-bolts expertise, then I have no doubt that when the 21<sup>st</sup> century arrives we **will** have the kind of faculty we need and deserve.

