



*“There will be no time for pseudopharmacy.”*

— KENNETH N. BARKER —

(1981)

*At the time he received this award, Kenneth N. Barker was Professor and Head of the Department of Pharmacy Care Systems at Auburn University School of Pharmacy, Auburn, Alabama, and Director of the Drug-Related Analysis Research and Evaluation program.*

# Pseudopharmacy Practice and the Future

**I** am very grateful for this award. This will always be one of the most significant events of my life.

I've spent most of my career in research, on topics having to do with the evaluation of systems and organizations. I assume my receiving the award had something to do with that, and so I will speak to you as a researcher observing hospital pharmacy, its practice, and its organization.

My topic will be the future and a change we must make to get ready for it.

The future is coming. It's rushing at us with some startling changes.

You have surely heard by now that America is growing up. Already there are more retired people in the United States than the total population of Canada. By the year 2025, there will be 85 million Americans over age 55.

The net effect is that the average patient will have more illnesses, and more money to spend on them. He will also be better educated, demand better care, and raise

more hell when he doesn't get it. What else can you expect from someone who has his mortgage paid off, his kids through college, and no boss to please? What does he do for aggravation?

We are in the midst of a communications revolution. While our newspapers have been losing circulation, in Japan and in Great Britain, and soon in Atlanta, TV users can push a button to request the display of a dozen different data services, such as stock market quotations, ball scores, and theater reservations.

The decline of the post office is in sight, as secretaries begin typing letters that are transmitted by phone line to a cathode-ray tube (CRT) or printer in the addressee's office. And the French are eliminating the phone book and replacing it with a CRT in each home.

The communications revolution will enable many people to work at home. Already, half of the 2000 Western Electric employees in their Northern Illinois plant work at home. This will not only save enormous amounts of time and gasoline involved in commuting but also help bring families back together, to *work* together.

Home microcomputers will be as common as indoor plumbing. While you are at work, your computer will take your grocery list and call the foodstore computers all over town to shop for the best prices.

Shortly, we will be manufacturing drugs in space, which offers gravity-free electrophoresis and a super supply of vacuum.

In his book *The Third Wave*, Alvin Toffler<sup>1</sup> describes the rise of the "prosumer," a term meaning the consumer who produces that which he consumes. Every "do-it-yourselfer" is a prosumer. This includes the people already checking their own blood pressure in coin-operated machines, mothers who learn how to take throat cultures themselves, and the housewife who buys a "smart" electric sewing machine. Instead of a pattern, she buys a cassette with a program on it that will sew the dress for her.

The most disturbing change of all is the accelerating pace of change itself.

Consider speed. It was not until 1784 that man finally traveled as fast as 10 miles an hour on a steam locomotive. Less than 200 years later, men in space capsules circle the earth at 18,000 miles per hour.

For the vacuum cleaner, electric range, and refrigerator, it took 34 years between the time they were invented and became widely used. But for later inventions, such as the electric frying pan and television, the span was only eight years. Technology feeds upon itself. Each new development makes more developments possible.

The number of scientific journals and articles is doubling about every 15 years. In part, that is probably because 90% of all the scientists who ever lived are alive today—publishing like crazy—all trying to get tenure.

The scariest part of it all is that I'm not really talking about the future. Everything I've mentioned is already here, in one stage or another.

Are we ready to face the future? How well have we hospital pharmacists responded in the past? How good have we been at adopting the innovations needed to cope with new demands upon us?

To evaluate our past performance, I propose we use the "Theory of the Diffusion of

Innovations.” This theory has to do with the process of the spread of a new idea from the time of its origination to its ultimate widespread adoption or demise. This process might take about 10 years, for example, as it moves through the five stages of:

1. Awareness.
2. Interest.
3. Evaluation.
4. Trial.
5. Adoption.

For a case study, there are several different innovations in hospital pharmacy practice that we could examine. I propose to use unit dose dispensing.

The unit dose dispensing concept was first proposed at the end of the 1950s. To set the stage, here is a brief idea of the world of hospital pharmacy in those times.

Only 47% of hospitals had at least one pharmacist on a full-time basis in 1952.

The news section of the *ASHP Bulletin* reported that Paul Parker was appointed chief at the University of Chicago Clinics. It also said a graduating intern, named Clifton J. Latiolais, would receive his Master of Science degree in June. (I think he made it.)

A column in the journal called “Therapeutic Trends” discussed the drug Aureomycin. You could also read George Archambault’s article “Complete Hospital System for Control of Narcotics, Hypnotics, and Other Drugs.”

But, most of the articles in the fifties had to do with bulk manufacturing. Someone later called that period the “bulk manufacturing decade.” A typical journal article dealt with the topic “The Use of Propylene Glycol as a Substitute for Glycerin.” Alan Beck presented pictures of a simple automatic bottler.

During the fifties, people were concerned about the nursing shortage—that’s the previous one, not the latest one. Near the end of the fifties, it was discovered that 25% of nursing time was spent handling medications.

In 1960, the dimensions of the medication error problem became known, and the demand for innovations in drug distribution fell upon us. The response was the unit dose dispensing concept. It moved quickly through the early stages towards adoption, fueled by money from large Public Health Service grants and strong support from ASHP.

By the mid-sixties, it seemed as if every pharmacy had a pilot study of a unit dose system.<sup>2-5</sup>

Conducting a pilot study became such a fad that our research group was asked more than once to come to a hospital and “put on” a pilot study, though there were no real plans to go further if it worked. We could have played more cities than “The Sound of Music” if we had wanted to.

Unfortunately, after these pilot study “road shows” closed, everybody went home, so to speak. In 1975, Wallace Werble, the editor of *The Pink Sheet*, spoke at a meeting of hospital pharmacists and asked, “Whatever happened to unit dose?”

The theory of the diffusion of innovations tells us that the rate of adoption of an

innovation is usually affected by the five factors shown below:

1. Advantage to adopter.
2. Compatibility with cultural norms.
3. Complexity.
4. Divisibility (can be tried piecemeal).
5. Communicability.

The president of ASHP in 1975 was Fred Eckel. Fred said he thought the problem was the first factor.<sup>6</sup> He laid the blame on pharmacists who dragged their feet after they discovered that unit dose dispensing was hard work. He suggested that many hospital pharmacists were giving only lip service to implementing new pharmacy programs.

My own experience supports Fred's observations about lip service, which I call "pseudopharmacy."

Have you ever gone to visit the pharmacy of one of the authors of a journal article to see for yourself the new system he wrote about?

I visited a famous proponent of the formulary system to find that his hospital didn't have one.

I visited a pioneer drug information center to discover that they now answer only two requests per week.

I visited a famous IV admixture service to discover they prepare admixtures only upon request, between 8 a.m. and 5 p.m. and only on weekdays.

How about a "total unit dose system" that does not include controlled drugs or IVs?

But there might be good excuses in these cases. Besides, everybody knows, to paraphrase the old song, "It ain't necessarily so, it ain't necessarily so, the things that you're liable to read in the *journal*, they ain't necessarily so!"

Big deal!

Does it really make any difference?

In 1975, a 12-year-old boy in our town was hit by a car. He spent five hours in surgery and eight days in a coma. After that, he was hospitalized for several weeks.

One day the boy's mother found a little card on the floor of his hospital room. It was a medicine card calling for kanamycin injection. She gave the card to the doctor, who mumbled "I never ordered that." But then he said: "Don't worry, it probably did him some good." But the boy was already having difficulties with his hearing, discovered when it was noticed he could no longer hear the sound of the floor cleaning machine in the hall outside his room.

The boy was my youngest son, Doug. He was a victim of a series of medication errors which occurred because the nurse put the wrong patient's name on a medicine card. The hospital was considered the best in town, but their "unit dose system" didn't include patient profiles and injections were dispensed in multiple-dose vials.

As I stood in Doug’s hospital room, I was stunned. My next thought was this: 14 years later, nothing has changed. This is what I saw in 1961 while observing nurses for medication errors for my master’s thesis.

All of those papers published, the conferences held, the publicity—nevertheless, a patient in one of our better hospitals, claiming to have “unit dose,” could still receive a drug like kanamycin injection by mistake for *four days*. And what if we hadn’t found the card?

Pseudopharmacy—it does make a difference when it gets to you personally.

In 1977, we got a chance to take a good close look at a “state-of-the-art unit dose system” in a collaborative study with Joe Harris at Sinai Hospital in Detroit.

As part of a three-year study, we had a pharmacist accompany selected nurses as they prepared their medications and then witness the actual administration to the patient. The observer’s notes, telling what was actually done, were compared with the physician’s orders on the patient’s chart to identify medication errors. The results revealed an error rate of 9%, not the 3% or less that was achieved with the systems tested 10–15 years ago.

Why? Here is some of what we found.

Recall that the original concept for a unit dose system included this key feature: *dose dispensed at the time each dose is due*.

A major source of errors under their system was where the correct unit dose was delivered to the nurse, but she nevertheless misused it in some way. Look at the right of Table 1, the number at the top. Note that 40 errors were of this type. Could this have something to do with the frequency of cart exchanges per day?

How important is it to deliver unit doses only at the times they are due? When the frequency of deliveries is reduced to twice a day, or even once a day, how does this affect the error rate?

Listen to this. During a five-day period, one patient suffered six omission errors and one wrong-dose error.

**Table 1. Nursing Errors by Source and Error Type**

Source	Number of Errors by Type						Total
	Omission	Dosage	Extra	Unordered	Route	Other	
<i>Medication Nurse</i>							
Administration (correct dose delivered to nurse)	18	14	2	3	1	2	40
MAR alterations by nurse	6	0	0	0	0	0	6
Borrowed (unordered) dose	0	0	1	0	0	0	1
<i>Floor Clerk</i>							
Pulled records too soon before discharge	1	0	0	0	0	0	1
Order put on wrong MAR	7	0	0	6	0	0	13
Order omitted from MAR	2	0	0	0	0	0	2
<i>Total</i>	34	14	3	9	1	2	63

The nurse accidentally dropped an Isordil tablet on the floor when passing the noon medications. To replace it, she reached in the drawer and took the dose already there for the next time, sent along with the first dose. She did not order a replacement. The evening shift nurse, not finding her dose in the cart at the time it was due, thought that it was discontinued and omitted it.

The omission of a dose of Atromid-S was similar. Instead of taking it, the patient left it on his breakfast tray and the nurse saw it go into the garbage. To replace it, she took the next dose from the cart, sent in advance as per usual practice, and gave him that one. As a result, the evening nurse found the drawer empty. She told the observer this had happened the night before but she did not get around to doing anything about it. The dose was never given.

In another case, the order said “Lasix 80 mg in the a.m. and 40 mg in the p.m.” At 6 p.m. the nurse looked for the 40-mg dose, and it was not on the cart. Right then, however, she discovered a bag containing the 80-mg dose for the next morning, sent up in advance. So she gave that 80-mg dose to the patient.

There was much more, but the lesson we learned is this. When the cart exchanges are infrequent, you can no longer rely on the cart to automatically present the nurse, on schedule, the next dose due and, perhaps more important, only the dose that is due. The result is more errors.

And so, at Sinai Hospital we looked at some of the modern compromises that have been introduced into the original unit dose systems tested in the sixties, and they don't look very good. At Sinai, major changes have already been approved.

But that prompts me to ask: Where are all the studies that proved that deliveries once a day are just as good?

Let's look at the 1981 *ASHP Statement on Unit Dose Drug Distribution*,<sup>7</sup> published just last August. Three elements basic to all unit dose systems are listed:

1. Single-unit packages.
2. Ready-to-administer form.
3. Not more than 24-hour supply<sup>a</sup> of doses delivered.

Setting aside the first two elements, where did element number three come from?

Did it get there, for example, because many chief pharmacists want it to be true so that they can claim to have unit dose systems without paying the price, as Fred Eckel had the courage to suggest in 1976?

That little superscript “a” on point number three refers to a footnote which read as follows:

*In long-term care facilities, a larger supply of medication (e.g., 48 or 72 hours) may be acceptable.*

When was that shown to be true?

We did a study last summer observing for medication errors in 58 nursing homes

across the country. We found no statistically significant differences between the error rates for those nursing homes claiming to have unit dose and those who said they didn't have it.

Do these findings mean that unit dose dispensing systems do not reduce medication errors in nursing homes? Or could it simply mean that their systems have been "watered down" so badly they don't work?

It seems to me that, as it stands, the new *ASHP Statement on Unit Dose Drug Distribution* is pseudopharmacy, however well intentioned it may be.

I am not charging that this is deliberate. I believe that mostly it is not. Ambitious chief pharmacists want to have the best and the latest, and that's good. When they can't afford it, that's sad. But when they slip into pseudopharmacy, that's bad.

You probably think by now that this is a lecture on ethics, but that's not my main point. The future we face won't allow us the luxury of the time and resources that pseudopharmacy consumes. Regardless of whether it's right or wrong, we can't afford it anymore.

The future is rushing upon us, and we may not like what we see. And we won't be able to cope, taking "time out" for pseudopharmacy.

What will it look like?

In the future, many of our hospital outpatient pharmacies may look like chain drugstores. In fact, they may be units of major drug chains.

Unbelievable? Undesirable? Consider these facts.

Today with the nation's political shift towards conservatism, government is abandoning its dominant role in health care. It wants to shift leadership to the private sector and let the marketplace determine medical prices and services.

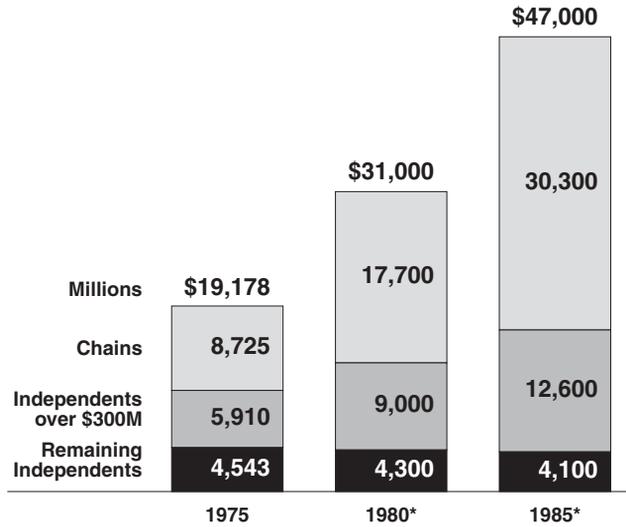
The new Secretary of Health and Human Services, Richard Schweiker, has said, "Competition is our highest priority in the health field."

Hospitals have listened. At the recent convention of the American Hospital Association, several sessions dealt with such topics as "how to change a nonprofit hospital into a for-profit hospital," "the hospital department of marketing," and "hospital market research."

The new model for hospital administrators will be that of the 40 for-profit corporations that are in the business of owning and managing hospitals. Examples are the Hospital Corporation of America, Humana, and Lifemark. They now own roughly 15% of the nation's community hospitals and half of the psychiatric institutions. By the end of the decade, they are expected to own or manage 33% of the nation's hospitals.

Proprietary hospital chains have begun taking over management of public facilities also. For example, Hospital Corporation of America acquired franchises to operate 10 public hospitals this last year alone. Cook County Hospital in Chicago is now being managed by Hyatt Medical Management Services.

Include the government hospitals, such as the Veterans Administration. This last year, the Office of Management and Budget issued Directive A76, ordering all agencies of the federal government to identify those services that can be contracted out. And they were instructed to do it wherever a bidder can do it at less cost than the government agency.



**Figure 1.** Projected dollar sales of drugstores by type (\*estimated). (Source: Nielsen Review.)

After the bids come back, will we see VA outpatient pharmacies run by Eckerd, or Peoples, or Rite-Aid in the same way that Morrisons and Marriott now provide food service in many of our hospitals?

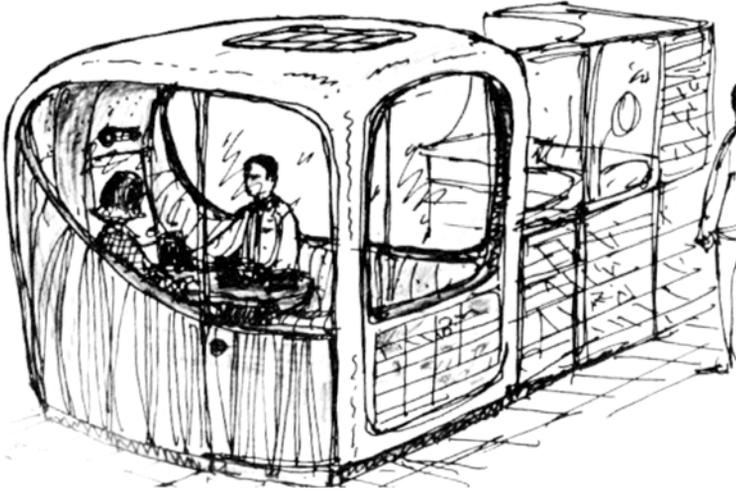
Are the drug chains interested in this business? Why not? If the name of the game is dispensing prescriptions at a competitive price in an open market, would you expect them not to participate? In a game they know how to play so well? As you can see in Figure 1, they are already on their way to dominating all drugstore sales in this country and are rapidly increasing their share.

What can we expect to find in an outpatient pharmacy run by a chain or one that has to compete with a chain? The answer is: (a) a philosophy based on maximizing profit, and (b) careful attention to consumer demand.

In trying to predict what chains will do, this should be clear: the consumer will be in control. They will try to give the consumer whatever he wants and can pay for, regardless of what others may think that he needs. And the chains have read the studies showing a growing demand, by patients, for more information about their drugs and for direct personal contact with the pharmacist.

Counseling booths of various designs have been seen in hospital pharmacies and some community pharmacies for more than 10 years. Figure 2 shows an idea of the counseling area of the outpatient pharmacy of the future. This new design features an attractive environment designed for a primarily female clientele. It includes provision for the storage and distribution of patient package insert information plus the following other features:

1. An area for private conversation that does not make the patient feel cornered or trapped.
2. Both pharmacist and patient can adjust their physical proximity to each other in the design of this seating and desk.



**Figure 2.** Counseling booth of the outpatient pharmacy of the future. (Proposed design by the Swensson Co.)

3. Wheelchair access.
4. Built-in audiovisuals.
5. The pharmacist can still view the rest of the store while he counsels.

But do you notice the biggest difference? The design was inspired by the ornate sedan chairs used by the rich in Victorian England. That makes it interesting, perhaps even fun. This is the marketing of pharmacy services to the consumer, which we are going to have to learn to do.

Regarding nonprescription medications, recent studies have made it clear that the advice of the pharmacist can be the single most important factor affecting their sales. Customers often walk right past the supermarket and on into the pharmacy to purchase the very same product. In this design of the future, the pharmacist is only steps away from the nonprescription drug sales area.

The chains are aware that today people are turning to perform for themselves service heretofore performed only by physicians. For example, patients began doing their own laboratory tests in 1970 when the do-it-yourself pregnancy-test kit hit the market. Now, across the land, ordinary people are learning to handle stethoscopes, conduct breast self-examinations, and even pap smears.

An abundance of self-help information has become available, including books which enable a patient to diagnose his own ailments.

Another area of the future outpatient pharmacy I foresee is a self-medication station (Figure 3). This self-service center is located in front of the nonprescription drug display. It provides references to be used by customers for self-diagnosis and self-medication. Customers will also find a store catalog to help them find the drugs and devices they decide they need.



**Figure 3.** Self-medication station of the outpatient pharmacy of the future. (Proposed design by the Swensson Co.)

The benefit to the patient is a reduction in the number of trips to the doctor. To the pharmacist, it offers the opportunity for a patient–pharmacist relationship which is out from under the physician’s authority over prescription drugs and self-supporting.

In the future, it will be the consumer who will largely influence our destiny, displacing the physician and the administrator to an important extent.

My next vision of the future I call “the disassembled pharmacy” or “the decentralization of almost everything.”

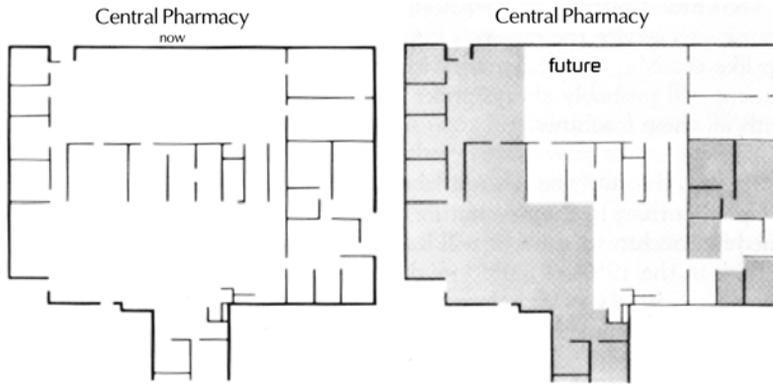
Toffler describes how the philosophy of decentralization is spreading everywhere, explaining the tax revolt and the demand for “neighborhood power,” the new trend in schools of architecture on designing communities to be self-sufficient, and the rush of large corporations to break their departments down into smaller, more autonomous profit centers.

The floor plan of the central pharmacy of a modern 600-bed teaching hospital is shown on the left of Figure 4. On the right is that same central pharmacy area in the future, as I see it. The shaded areas will no longer be needed. The only functions that will remain centralized will include the packaging of unit doses, the manufacturing of hyperalimentation solutions, quality control, and the receiving and storage functions.

Drug distribution is already being decentralized in the mobile pharmacy teams that are currently gaining popularity.

In the future, the director of the pharmacy, secretaries, and clerks will all go home—“not together”—and spend much of their time at computer consoles and teleconferencing equipment in their homes. They will come to work occasionally for meetings and coordinating sessions and to attend the office party. Otherwise, the advent of low cost communications and teleprocessing equipment will eliminate the need for elaborate office suites. Only one or two all-purpose rooms will be needed.

Toffler refers to the trend towards work at home as the advent of the “electronic cottage.”



**Figure 4.** Floor plan of the central pharmacy of a modern 600-bed teaching hospital now (left) and in the future (right); the shaded area will no longer be needed.

Certainly it's not difficult to envision the drug information center being operated by a pharmacist and his or her spouse out of their home and serving several different pharmacies on a contract basis. That is, or course, unless they are eliminated entirely by the new system just announced by the American Medical Association, which will let any physician access the database for *AMA Drug Evaluations* in Chicago. Their contract with General Telephone calls for this to be up and running in 1983.

The clinical pharmacist practitioner of tomorrow will have plenty of interaction with the patient and the medical team. That is, his computer will interact with theirs. The clinical pharmacist, completely freed from the central pharmacy, has a "glorious" future ahead, performing the function of clinical maintenance man.

His role will focus on servicing his own computers, which will interact with the medical team computers in prescribing and monitoring drug therapy. He will service the bedside computers as they teach the patients, interactively, how to take their medications. He will service the patient's home computer by transmitting, by phone line, the program it will need to remind him when to take his drugs. It will also monitor his compliance.

The clinical pharmacist will need to go to a patient's bedside of course—to service the patient's implanted drug devices. He could end up like the Maytag repairman, with little left to do. Of course, the patient will probably always prefer a human being at the interface with all these machines.

My last vision of the future I label simply "the pill machine."

I predict that, in the near future, all routine prescriptions will be filled by machine. I think it will happen this way.

Back in the 1950s, a multidose dispensing machine called the Brewer machine was introduced. At that time, hospital pharmacy reacted violently to this threat of automation, and the Brewer machine was soon put in its place by the state boards of pharmacy.

Since that time, the automation of dispensing has returned, on silent “cat feet” if you will, while we have been playing pseudopharmacy, and we are now about to be consumed by this big kitty before we realize it’s hungry.

Consider the outpatient pharmacy department at a VA hospital in California. The pharmacists are out front receiving the prescriptions. They then pass them through a slot to be filled by technicians in the backroom. When filled, the pharmacists hand them out and counsel the patients.

The dose counting machine is in wide use throughout military pharmacies, and its use is spreading throughout other large outpatient pharmacies. The next generation model is completely controlled by a computer. We are evaluating one of these units in our laboratories right now.

My point is this. We already have computer-operated storage and counting equipment and computer-printed labels. The patient profiles are in the computer. The only people left in the filling process are the technicians, and they don’t have state boards to defend them the way that pharmacy boards defended pharmacists against automation in the late fifties. It should only be a matter of time before the dispensing of routine medication is completely automated, leaving maintenance of the machines as the only task requiring human intervention.

The potential impact of this on patient care is receiving little attention, if any. If we study it and find that it’s good for patient care—that’s good pharmacy. If we just let it happen because nobody cares, that’s more pseudopharmacy.

A comment on predicting the future before I go on. The only thing for sure is that pharmacy is not “at the crossroads.” That analogy is out of date. Straight-line projections don’t work because the future is becoming so disorderly. Once a trend is apparent, people now quickly react to it, never exactly the way you expect. And that alters the outcome.

Medicare and Medicaid did a lot for pharmacy—what will happen to pharmacy when they are diminished next year? How badly will the growing surplus of physicians threaten clinical pharmacy? It is on the way towards eliminating the physician’s assistant.

It has never been more difficult to predict the future, or more important to try.

To get ready for the future, we will need flexibility and speed. We must prepare ourselves to deal with these new developments quickly with positive proposals that will stand the closest scrutiny. If they do not withstand it, we must discard them just as quickly and move on to find alternatives that will. There will be no time for pseudopharmacy.

How can we avoid it? How can we eliminate this endemic disease of creeping self-deception? I would prescribe regular doses of good objective feedback in the form of a continuing, critical review and analysis of our policies and programs. But who should do it?

The official statements and guidelines of the Society are effective mechanisms for producing the motivation to speed the adoption of our innovations. But who should we ask to review them, to tell us whether they are still valid and effective, or ever were? Who will play the devil’s advocate?

ASHP has always been blessed with the kind of leadership we needed—first to survive, and then to grow. Now we are engaged in the next phase of any successful organization. It's called "coping with success." And we need to give our leaders a new tool to help them with this task.

My proposal is that the Society create, fund, and operate a small, new, and very different organizational component for which I have coined the named Policy Analysis Laboratory.

The Policy Analysis Laboratory (PAL) should be a function of, and report to, the ASHP House of Delegates. It should not be a function of the ASHP staff or Board for the following reasons. The obvious one is that it must be completely free to analyze and criticize current policies and programs. Not so obviously, the ASHP leadership must be equally free to disagree with the PAL, without obligation for its conduct, and to continue with those policies and programs felt to be important.

Nobody is perfect, and this new body will not be either. We are looking only for a second opinion here, not a new "medical team."

Though initially the ASHP leaders and staff may view this idea as "just something else to harass them," I think they will find it particularly helpful when dealing with "unpopular realities that need to be faced." If leadership can be defined as "the art of persuading people to forget what they want and seek what they need," then we can see why it is pretty rare. The Policy Analysis Laboratory can help our leaders by providing independent confirmation of those things we do not want to hear, but *need* to hear, from a perspective wider than pharmacy.

The PAL staff can consist of one person—the director—with authority to create ad hoc advisory panels, plus a secretarial and travel allowance. It should be a revolving position, attracting the best and the brightest for perhaps a two-year period. He or she will need access to the resources of a university and could be located in Washington, though not at ASHP headquarters. Of course, access to all ASHP documents, correspondence, and meetings is essential. Perhaps a foundation would fund this office, for the initial years at least.

A model of the organizational component I have in mind would be a cross between that offered by the Government Accounting Office (GAO) and the Brookings Institution. The GAO was established to give Congress an independent investigative body for the analysis of programs carried out by the administration. The GAO has one of the best reputations in Washington. Best of all, it really works. The Brookings Institution was established to offer to the government an independent policy review and analysis body, drawing upon the universities and expertise outside the government. The Brookings Institution is a success also.

I see no reason why ASHP can't emulate these models and many good reasons why it should.

What should be the first assignment of PAL once created? That would be for the House to say. In the face of the pressure to hold quality constant at the lowest level of cost, plus the loss of all of those university clinical positions previously supported by the capitation funds that are now being eliminated, my preference would be a review of the justification of the various clinical pharmacy services.

That is my one proposal and recommendation. We need a Policy Analysis Laboratory to fight pseudopharmacy.

ASHP has a remarkable history of professionalism for an organization of its size. In terms of leadership, we have lived in the land of giants. And from its stature, ASHP derives its most valuable resource—its appeal to the best in us all.

Now it is time for ASHP to take the lead again and do what no other pharmacy organization has yet dared to do—create an independent body to evaluate its own programs. Some old-fashioned virtues are involved: honesty with ourselves, and courage to face the truth. Such virtues are stylish again I hear.

The cynics in Washington say you can fool some of the people some of the time, and that's enough. But it is not when we are fooling ourselves. As the old song says, the fundamental things apply as time goes by—but time is moving faster.

In closing, I thank you for this honor, and I want to recognize the following people, particularly Bill Heller, to whom I owe so much; Louise, Brad, Linda, and Douglas; my parents; William M. Heller; Warren E. McConnell; Ben F. Cooper; Don and Gloria Francke; Robert H. Henry; Janet D. Maiuro; Paul F. Parker; Joseph F. Stringer; and my colleagues and staff at Auburn University and the USP.

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(For the complete list of references cited, please see page 265 of the *American Journal of Hospital Pharmacy*, Feb. 1982.)

*Harvey A. K. Whitney Award Lectures (1950–2005)*

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