Journal of the American College of Dentists

A Publication Presenting Ideas, Advancements, and Opinions in Dentistry

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Mission

The JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS shall identify and place before the Fellows, the profession, and other parties of interest those issues that affect dentistry and oral health. All readers should be challenged by the Journal to remain informed, inquire actively, and participate in the formulation of public policy and personal leadership to advance the purposes and objectives of the College. The Journal is not a political vehicle and does not intentionally promote specific views at the expense of others. The views and opinions expressed herein do not necessarily represent those of the American College of Dentists or its Fellows.

Objectives of the American College of Dentists

The AMERICAN COLLEGE OF DENTISTS, in order to promote the highest ideals in health care, advance the standards and efficiency of dentistry, develop good human relations and understanding, and extend the benefits of dental health to the greatest number, declares and adopts the following principles and ideals as ways and means for the attainment of these goals.

A. To urge the extension and improvement of measures for the control and prevention of oral disorders;
B. To encourage qualified persons to consider a career in dentistry so that dental health services will be available to all and to urge broad preparation for such a career at all educational levels;
C. To encourage graduate studies and continuing educational efforts by dentists and auxiliaries;
D. To encourage, stimulate and promote research;
E. To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;
F. To encourage the free exchange of ideas and experiences in the interest of better service to the patient;
G. To cooperate with other groups for the advancement of interprofessional relationships in the interest of the public;
H. To make visible to professional persons the extent of their responsibilities to the community as well as to the field of health service and to urge the acceptance of them;
I. To encourage individuals to further these objectives, and to recognize meritorious achievements and the potentials for contributions to dental science, art, education, literature, human relations or other areas which contribute to human welfare—by conferring Fellowship in the College on those persons properly selected for such honor.
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Sometimes I sit on the other side of the table. I am a researcher and regularly publish in the fields of learning and educational evaluation. I have experienced the peer review process from both sides.

This past Labor Day I spent six hours responding to the feedback from three reviewers and an editor on a paper that had been tentatively accepted for publication. Each comment had to be weighed. Did the methods section need to be rewritten? Was sufficient information provided about the statistical tests? Were suggested word changes appropriate? In the end, about 15% of the manuscript was revised and three pages of single spaced comments were written to the reviewers and the editor explaining my responses.

I was lucky in this effort. There was general agreement among the reviewers that the topic is significant and no errors were detected in the experimental design or execution of the study. (When the larger issues of topic selection and study bias are not handled well, the reviews can be short and strong. The usual response in those cases is to file the manuscript somewhere in the garage.) In this case, it was the sixth or seventh reworking of the paper. This paper had already won a research award and I was able to benefit from the feedback provided by those five judges.

Readers should understand the peer review process. It is a vital mechanism for developing knowledge in the profession, but it falls far short of being a guarantee that what is written is useful and it does not absolve readers from their own responsibility for critical review.

Editors should understand the peer review process. It is a vital mechanism for developing knowledge in the profession, but it falls far short of being a guarantee that what is written is useful and it does not absolve readers from their own responsibility for critical review.
The purpose of peer review is to provide a rich context of critical analysis to support the editor's decision to publish, not publish, or seek revision on submitted manuscripts. The reviews are advisory.

academic deans in all American dental schools. Faculty members, in order to earn promotion and tenure, are expected to publish regularly and particularly in peer reviewed journals. The letter sent to the deans was a complaint by the editors that some schools did not consider their journals to be peer reviewed. The letter assured academic deans that the editor of that journal did review all submitted manuscripts, and sometimes other individuals read them as well. Most academic deans would agree that these are not the peers one has in mind.

Recently I received a complimentary copy of that journal. This issue had the unusual characteristic that every research article in it featured a new product developed by the same company and all results were favorable. The only ads in the journal were from the firm that manufactured the products tested and the back page contained an acknowledgment of funding for the entire issue from the manufacturer. The journal prominently states on its cover that it is a peer reviewed publication.

There is something a little scary in telling a reviewer that he or she is an expert, invited to critique a creative work, and assured complete anonymity. Occasionally, very destructive reviews are received. Most editors will rewrite them if they contain valid comments before sending them on to authors. More often, however, reviewers come across as being somewhat pompous. A challenge all reviewers face is knowing the limits of their own expertise. They have been asked to provide a critique, "and by gosh, they will find something to criticize."

A fallacy that is so predictable that it has a name, the critic's fallacy, is downgrading a manuscript because it fails to address the issues the critic wanted to have addressed. "The author's conclusions about thus-and-so appear to be sound, but has he considered x, y, and z" and "Wouldn't it have been better if she had explored some other things that I would like to have investigated if I had time to do the research myself." If the issues of interest to the journal's readers and the integrity of the results and arguments has been resolved, there is no place for criticizing authors for what they have not yet done.

A more subtle version of the critic's fallacy is the issue of misplaced emphasis. The third criteria in the Journal of the American College of Dentists instructions for reviewers raises the issue of clarity of communication. This matter should be addressed by reviewers who find the manuscript to be sound and of interest. Sometimes there is consistency among reviewers that part of the methods are unclearly explained, or outcomes are not described well, or more typically that there is general dissatisfaction with the organization or clarity of writing. This is one of the most difficult tasks an editor faces. While it is trite to say that ambiguity, word choice, poor structure, or an awkward style detract from even the best of content, there is no standard for what is good enough. The editor has to get the most possible by working with the comments of reviewers and the capability of authors.

But reviewers don't always agree with each other on what is good style. Among every three reviews, it is certain that one or more will have a comment to the effect the author needs to explain in more detail and amplify several points and that the paper is too long and needs to be made more concise. When two or more reviewers ask for amplification, it is unusual that they want to know more about the same item. For my own manuscript that I revised recently, I was told that the hypothesis should be restated in the discussion section of the paper. I was also told that it would not be worthwhile restating the hypothesis in the discussion. The fact that both comments were made by the same reviewer left me unable to respond.

In the instructions to reviewers for the Journal of the American College of Dentists, the matter of style and grammar are left as a fourth and optional criteria for reviewers. There is little of less value than the journal review offering no comment about the relevance of the paper or the soundness of the contribution but is triumphant in its discovery of a typographical error and has had the serial commas before the final conjunction in series laboriously removed. The spelling checker will do a better job finding the misspellings and reviewers need to be certain of the style of the journal because it is embarrassing to promote optional rules that are inconsistent with the standard of the publication. External reviewers should focus on content and not take on the secondary role of copy edi-
Editorial

tor. The only way to achieve consistency of style in a journal is to use a single copy editor.

In 1997, the Journal of the American Medical Association devoted an entire issue to the problems of peer reviewed literature. Several studies reported that agreement among reviewers ranged from nearly zero to a high of .30 or perhaps .40. The maximum agreement possible is 1.00, and research papers with reliability of measure as low as .30 or .40 would be rejected by reviewers. I do not believe the consistency among reviewers in dentistry is better than it is in medicine, and my own experience calculating the consensus among journal reviewers and judges for papers at scientific sessions confirms that consistency is always below .50.

In this journal during the past five years, the proportion of accepted manuscripts submitted have been approximately 35% and the consensus among reviewers has been .70. The journal is unique in the dental literature because it publishes these data and others related to the peer reviewed process on a regular basis in the journal. In other words, the journal publicly discloses the results of its peer reviewed process. The comments of all reviewers are shared anonymously with authors and with other reviewers. I believe that this process should be adopted by all journals in dentistry where peer review is used. That would improve the process and enhance our credibility among both authors and readers.

David W. Chambers, EdM, MBA, PhD, FACD
Editor

Volume 68 Number 4
Candidates for Fellowship in the American College of Dentists, Congratulations. Congratulations from all our Officers, from all of our Regents, and from our entire fellowship.

It is a wonderful experience to be able to assemble, as we have, in order to recognize your achievements and to honor you for them. You are each being honored for your leadership, for your contributions to society, and for your multiple contributions to the many communities of dentistry. The College is proud to welcome you into Fellowship.

The American College of Dentists is the primary moral authority in dentistry. It is the conscience of dentistry. We are the profession’s voice for ethical practice. We are an apolitical catalyst, promoting the highest ideals of excellence, ethics, and professionalism.

The American College of Dentists is one of the most respected organizations of professionals in the world. Just a little over 3% of the dentists in the United States have been granted Fellowship in the College. Admission into the College is strictly by invitation. Your candidacy for Fellowship is supported by a very involved, objective credentialing process; a process initiated by your sponsor. Your sponsor has been remarkably involved. We know that because you represent nine different countries and forty-three of our United States.

Election to Fellowship is not an end in itself, rather, it is a base from which you may further serve. You can serve the College by doing more of what you did to earn Fellowship. You have a unique opportunity to endow the College with future in leadership. Nominate them to Fellowship.

You can also serve the College, and dentistry, if you will search for the best and the brightest and encourage them to join us in the dental profession.

The American College of Dentists is the primary moral authority in dentistry. It is the conscience of dentistry.

Conferring Fellowship is a significantly important ACD activity, but that is not the only function of the College. As the champion of excellence, ethics, and professionalism in dentistry, the ACD is a proactive leader in a wide range of mission-related initiatives. That leadership posture is of great importance because the difference between formidable challenges and fantastic, inspiring opportunities is leadership.

Dr. Follmar is retired from a practice of oral and maxillofacial surgery and lives with his wife Penny at 20770 Montalvo Lane, Saratoga, CA 95070.
The more you learn about the College the more you will come to realize what enormous contributions the College has made, and continues to make. It was eighty-one years ago that twenty-three visionary dental leaders met in Boston. They met to consider the problem of dental commercialism. Dentistry, at the time, was not the orderly profession it is today. Those leaders concluded that a unique organization was needed, one with a special mission, one that would look beyond today and plan for tomorrow, one that would help reshape dental education, dental research, and dental journalism and lead by example.

When those inspired prime movers, created the American College of Dentist, they did it on a high note. They promoted professional excellence by recognizing professional excellence. To do that, they honored dental role models, role models precisely like you. There were thirty-five new Fellows selected that very first year.

Dental education at that time was not wholly university based. Propriety dental clinics and preceptorships abounded. Dental journalism was essentially a series of commercial periodicals published by dental product manufactures and designed to market dental products. Dental research was mostly subjective and managed primarily with an interest in developing marketable products. Pure dental research was rare, those visionaries, however, recognized that in adversity there exists opportunity, and they grasped that opportunity.

Consider, for a moment, the sincere dedication required of those twenty-three creative founding Fellows as they set out to alter the philosophic values of an entire profession. Their firm commitment to a highly principled posture signaled the beginning of a new self image for dentistry, one with an emphasis on professionalism and all of its ramifications.

In its early years, the newly formed College did not come close to having the economic resources essential to resolve dentalistry's weighty troubles. It, however, had innovative leaders, leaders who provided motivational guidance to like-minded professional organizations. The new College became an engaged steward of well defined creative ideals and objectives.

The concept of a uniform, university-based dental education was vigorously endorsed. The College created a Commission on Journalism, which resulted in the initiation of the American Association of Dental Editors. The then new International Association of Dental Research was strongly supported by the College, in fact, the Journal of Dental Research resulted from fiscal involvement by the College. All this did not happen overnight. Over the years, the College became the architect of the changes that helped transform dentistry into a true profession.

A Look Around

What is the College all about today? Same as it was in the beginning. It is about making a vital positive impact upon our profession. Our Board of Regents has focused its attention on ensuring enhanced administrative, operational, and financial stability for the College as the underpinning required to move the College toward ever more creative involvement in the critical issues surrounding our mission. That mission is to promote excellence, ethics, and professionalism in dentistry.

Case in point. The College was influential in securing recent approval of the new “Ethics, Law, and Professionalism” ADA CERP category for continuing education courses. In fact, the very concept of a separate category of ethics-related CE courses originated with the College. This will emphasize excellence, ethics, and professionalism frequently and indefinitely.

Prioritized objectives are woven into all current ACD activities. For instance, the ACD in very recent years sponsored an Ethics Summit. It was the first meeting of its kind, ever. National leaders of all the components of dentistry were brought together to discuss the common, but complex ethics issues facing the many stakeholders in oral health care. Fifty-four different organizations were represented. This forum included leaders of general practice, and all dental specialties, the assistant's, technician's, and hygienist's organizations, product manufacturers and suppliers, insurers, publishers, dental researchers, and academicians. During this meeting the attendees formally recognized, accepted, and now advocate the concept that basic standards of ethics are needed throughout all components of our dental family.

Then, Ethics Summit II was convened last year by the College. It too involved the greater dental community. Sixty different dental organizations participated. This meeting also was a huge success because the exciting concept of an Ethics Alliance of Oral Health Organizations was emphatically approved. It will address issues across a broad spectrum. The Alliance will improve communication in all directions. It will heighten ethics awareness and advance ethics issues within the entire oral health care sector.

This Ethics Summit project is only one of the many significant ACD mission-related initiatives in place and ongoing. The vast majority of our projects are national in scope, so it is obvious that the many projects are being undertaken cannot all be funded by dues alone. That is why the ACD Foundation was created.

The Foundation of the American College of Dentists is a nonprofit, charitable public foundation. It was created to raise tax-deductible support for stra...
Managed care does not nurture the soul nor the spirit.

Managed care is a thorny third-party relationship or reimbursement process. Not all College activities are such serious business. Our summer conferences are fun-filled, annual family social events. They are an informal opportunity to interact with Fellows from all over the country and to enjoy superb social activities and outstanding continuing education. Next summer we will meet at the fabulous Marriott Sawgrass Resort in Florida. This is an event you will truly enjoy and appreciate.

A Look to the Future
I have presented past ACD activities. I have reviewed the ACD's present.
Now, what is in the ACD's future? I am certain that our future is so bright that we will all need sunglasses.

I now request a point of personal privilege. I wish to introduce the lady who has made all things possible in my adult life, my first lady and my soon to be first lady of the American College, my bride of fifty-five years, Penny Follmar.

I feel uniquely privileged to be able to serve in the highest office of the College. I humbly accept that responsibility. I thank the Officers, the Board of Regents, and the Fellowship for that honor. I shall do everything possible to support the vision that the American College of Dentists represents. That vision is to be the leader in the promotion of excellence, ethics, and professionalism in dentistry.

May the future continue to shower upon you and your family an abundance of good health, success, and happiness. I thank you, each one of you, for all you have contributed to dentistry and to society.

And God Bless America!
Oral Health and Social Justice: Leadership Opportunities for Dentistry

Convocation Address
October 12, 2001
Kansas City, Missouri

Linda C. Niessen, DMD, MPH

Thomas Cahill in his book, *The Gifts of the Jews*, wrote: “We normally think of history as one catastrophe after another, war followed by war, outrage by outrage — almost as if history were nothing more than all the narratives of human pain, assembled in sequence. ... But history is also the narratives of grace, the recountsings of those blessed and inexplicable moments when someone did something for someone else, saved a life, bestowed a gift, gave something beyond what was required by circumstance.”

Newly-inducted Fellows, supportive family, distinguished guests, proud sponsors, Fellows and Officers of the College, President Bradley, it is truly an honor to speak to you on this celebratory occasion. Our world has changed dramatically in the past thirty-one days. The text of our lives has changed. We relied and depended on the leadership of public officials and private citizens in ways we haven’t experienced in over sixty years. Their narratives of grace continue to be told.

This afternoon, we celebrate the leadership of the Fellowship Class of 2001 — your “narratives of grace.” How, as a result of practicing your chosen profession, you “do something for someone else, save a life, bestow a gift or give something beyond what is required of you by circumstance.” These narratives represent the activities and accomplishments for which you have been invited to Fellowship in the American College of Dentists.

As a class of Fellows, your “narratives of grace” are truly inspiring. You have all improved the oral health of the people in your community in some unique way, through practice innovations, research advances, educational initiatives, community service, civic leadership. While your names are all listed in the program, let me introduce you to each other briefly through your accomplishments. (You are all probably too modest to have discussed with one another why you got in!) So at the risk of sounding like your mother, let me brag about your achievements. You have participated in the development of the American Dental Association’s *Future of Dentistry Report*. You have helped craft the first Surgeon General’s Report on Oral Health. You have served as president of your state or local dental society. You have served as a member of your school board or city council. You have built a successful dental business. You hold patents. You serve on the dental licensing board in your state or country. You have fluoridated your community. You launched a community-based dental program in your state or town. You have developed dental education initiatives throughout the world and even translated your lectures into Russian to present them to your colleagues in a Russian dental school. These are but a few of the achievements and accomplishments that represent the 2001 Fellowship Class.

It has been said that there is no higher honor than being recognized by your peers. Your sponsors noted that your efforts “to promote excellence, ethics, and professionalism in dentistry” were consonant with the mission of the American College of Dentists. Founded in 1920, the College was the vision of leaders of the American Dental Association and faculty leaders in dental schools. At the time the College was founding there were no standards for dental research, no standards for dental education, and no standards for dental journalism. Through the efforts of the College, standards were established and the status of the dental profession was elevated.

The College carries its rich history and tradition into today’s activities. It has become the foremost organization addressing ethics and professionalism in dentistry. The College has become...
known for the Ethics Handbook for Dentists
and the Ethics Summits — landmark
conferences that have invited leaders of
various dental organizations to examine
ethical issues facing dentistry.

Leadership isn’t always easy, and it in-
volves crafting a vision that may be re-
 mote and distant from the present. Hav-
ing a solid ethical foundation can pro-
tide your “narratives of grace?” After all,
the best predictor of future leadership is
past leadership.

As we craft the future, we are not
alone in this task. There are some land-
marks along the way to guide us. Like
the eye chart in the ophthalmologist’s of-
 fice with the big “E,” our big “E”
should be our ACD Ethics Handbook! Two
other equally important seminal
works can also assist us. In May, 2000,
Dr. David Satcher issued Oral Health in
America, the first Surgeon General’s re-
port on this topic. The report examined
oral health as it related to general health,
the role oral health plays in society, pat-
terns of oral diseases, and linkages be-
tween oral health and systemic disease. It
was not a report about dentistry. It was a
report on oral health. And it outlined
various strategies that society could take
to improve the oral health of all our citi-
zens. Almost as a companion to this
document, last month, the American
Dental Association published the Future
of Dentistry report. It will be discussed at
a reference committee hearing on Sun-
day and by the House of Delegates. Un-
der the guidance and leadership of Dr.
Les Seldin, the report addressed clinical
practice and management, education, re-
 search, access and financing, licensure
and regulation, and international issues. If
it was contentious, it was discussed. I
was amazed at how openly and honestly,
Dr. Seldin engaged participants in discus-
sions of the topics critical in shaping the
future.

I find it striking that these two docu-
ments — one crafted by a public organi-
zation, the other by a professional, pri-
vate organization — reached similar
conclusions in a number of areas. Oral
health is an important thread in Ameri-
cans’ social fabric. Dental prevention
works. The number of dentists is declin-
ing in certain parts of the country as are
the numbers of dental assistants, dental
hygienists, and dental laboratory techni-
cians. Oral diseases are more prevalent in
certain populations. Dental faculty short-
ages exist throughout the country. Dental
students’ debt has increased dramatically.
Access to needed dental care is becom-
ing more difficult for special needs chil-
 dren and adults, nursing home residents,
and low income populations. So as you
are called to the next phase of your lead-
 ership in dentistry, how will you choose
to serve?

John Rawls in his Theory of Justice
wrote that “Justice is the first virtue of
social institutions, as truth is of systems
of thought.” Justice or fairness is one of
the principles of ethics that distinguishes
a profession and sustains this College. It
is a Core Value of the American College
of Dentists and of our country. As
Americans, we share a strong sense of
fairness and equality of opportunity.

Fifty years ago, oral diseases were al-
mnost ubiquitous in the population. In
fact, the impetus for the founding of the
National Institute of Dental and Cranio-
facial Research (our dental institute at the
National Institutes of Health) in 1948
was “the recognition that the military
preparedness of the U. S. depended on
eradicating the dental deficiencies of re-
cruits.” During World War II, 20% of
two million recruits did not meet the se-
lective service dental requirements.
“Dental defects” were the primary
reason for rejection of recruits.
The recruits could not meet the criteria
of having “six opposing teeth in each
jaw.”

In the ensuing fifty years, significant
progress has been made on eradicating
oral diseases and improving oral health.
But oral diseases are still not fair. Al-
though the distribution of caries has nar-
rrowed, 80% of the caries now occurs in
20% of the children — 20% who may not have the resources to receive treatment. We are reaching more Americans for dental care. Between 60% and 70% of Americans visit a dentist in a given year. But there remains 30-40% we don’t see annually. Oral cancer affects almost 30,000 Americans each year and one half of these individuals die within five years — a number that has remained remarkably steady for almost fifty years.

Oral health is intimately linked to the social fabric of American life. We debate the relationship between periodontal disease and cardiovascular disease. Research in orthodontics demonstrates how correcting malocclusions increase self-esteem among young adults. Regardless of whether you believe health care is a social good or a consumable good, research has shown that poor oral health has been related to decreased school performance, poor social relationships, and less success later in life. School nurses in Texas report a range of oral health problems such as dental caries, gingival disease, malocclusion, loose teeth, and oral trauma in children. Children from families with low incomes had nearly twelve times as many restricted activity days (e.g., days of missed school) because of dental problems as did children from families with higher incomes.

The leadership opportunities for the future lie in correcting these disparities; in creating and distributing oral health more uniformly throughout the population. As dentists, we gained tremendous respect from the public for our efforts theoretically put us out of business. Our sense of justice or fairness that all citizens could benefit from these preventive efforts guided our activities and won the public’s trust. Opportunities to win the public’s trust surround us today.

Oral health disparities continue today in the America and throughout the world. The challenge before you today is where and how you will focus your future leadership efforts? I’ve often thought that if we could keep our own children dentally healthy (and I dare say that if we did a DMFT survey of our collective children, the number would be close to 0), couldn’t we as a profession adopt a goal that every child in this country should be as dentally healthy as our own. Just think of the possibility. You wouldn’t have to be the child of a dental professional to have excellent oral health. And what about our parents? I would offer that it may be easier to keep our children dentally healthy than our parents. The effects of chronic illnesses, multiple medications, and impaired motor skills can take a devastating toll on oral health. How can we distribute oral health more uniformly to the increasingly older population?

The future will require creativity, courage, integrity, ethics, and professionalism. These are all traits for which you have been recognized today. It will also demand change; to do things differently; to take risks. It may not always be easy. But remember, as Fellows in the American College of Dentists, you have a whole new set of friends who share your values. Don’t hesitate to share your new ideas, your vision, or dreams with these colleagues during your long and active participation in the College.

Helen Keller wrote “When we do the best we can, we never know what miracle is wrought in our life or in the life of another.” Congratulations again for your past accomplishments. I look forward to reading about the miracles of your continued achievements, in your future “narratives of grace.”

Suggested Reading


2001 Fellowship Class

The Fellows of the American College of Dentists are the leaders in dentistry and in their communities. They represent the creative force of today and the promise of tomorrow. We proudly welcome the 2001 class of Fellows ...
Roger D. Craddock  
_Memphis, TN_  

Richard J. Crout  
_Morgantown, WV_  

Margaret M. Culotta-Norton  
_Washington, DC_  

Daniel J. Daley  
_Drexel Hill, PA_  

Donald P. Darbro  
_Greenwood, IN_  

Steven M. Dater  
_Rockford, MI_  

C. Scott Davenport  
_Charlotte, NC_  

George W. Davidson, III  
_Jenkins, KY_  

Jeffrey A. Dean  
_Indianapolis, IN_  

Kelly Deeter  
_Topeka, KS_  

Neil D. Demaree  
_Marion, VA_  

Andrew R. Dentino  
_Brookfield, WI_  

Thomas E. Derosier  
_Falmouth, MA_  

Janice P. DeWald  
_Dallas, TX_  

Nelson Artiga Diaz  
_San Francisco, CA_  

Gary J. Dilley  
_Cary, NC_  

David A. Dischler  
_Scottsdale, AZ_  

David S. Dodell  
_Scottsdale, AZ_  

Kevin J. Donly  
_San Antonio, TX_  

Kelly D. Douglass  
_Topeka, KS_  

Lois F. Duerst  
_Hastings, MN_  

David H. Duey  
_Scottsbluff, NE_  

Arlet R. Dunsworth  
_Dallas, TX_  

Meryl J. Efron  
_Staten Island, NY_  

Ian Elliott  
_Aurora, IL_  

Randall W. Ellis  
_Omaha, NE_  

Richard C. Engar  
_Salt Lake City, UT_  

Bradford M. Eschler  
_Okemos, MI_  

Caswell A. Evans  
_Bethesda, MD_  

Marvin A. Fier  
_Pomona, NY_  

Ann M. Flermoen  
_Bath, MI_  

Michael C. Fling  
_Oklahoma City, OK_  

Paul M. Flynn  
_Lansing, MI_  

Kevin B. Frazier  
_Augusta, GA_  

David E. Frost  
_Chapel Hill, NC_  

Rudolph S. Fulton  
_Houston, TX_  

Matthew P. Gandolfo  
_Lexington, KY_  

Jeffrey Ganeles  
_Boca Raton, FL_  

Brent T. Garrison  
_Indianapolis, IN_  

Raymond E. Gist  
_Flint, MI_  

Gayle Glenn  
_Dallas, TX_  

Joel M. Glickman  
_Allentown, PA_  

Robert F. Goodrich  
_Nashville, TN_  

Michael T. Goupil  
_Farmington, CT_  

Sarah A. Gray  
_Philadelphia, PA_  

Larry Greenbaum  
_Chey Chase, MD_  

K. Ian Hadfield  
_Victoria, BC, CANADA_  

Arthur F. Hannigan  
_Orleans, MA_  

Kimberly A. Harms  
_Farmington, MN_  

Thomas C. Harrison  
_Katy, TX_  

Glenn V. Hemberger  
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Appleton, WI

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Robert Yudelson  
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The William John Gies Award was established by the American College of Dentists in 1939 to recognize Fellows for outstanding service to dentistry and its allied fields. This award embodies the highest levels of professionalism, and it is the highest honor the College confers on its members.

The highest honor the College can bestow upon a Fellow is the William John Gies Award. This award recognizes Fellows who have made exceptional contributions to advancing the profession and society. This year's recipient is Arthur A. Dugoni, DDS, MSD.

Dr. Dugoni has been Dean of the School of Dentistry at the University of the Pacific (UOP) since 1978 and is a past president of the American Dental Association (ADA) and the American Association of Dental Schools (now ADEA). A Board certified orthodontist from San Francisco, he served as Director of the American Board of Orthodontists from 1979-1986 and as President in 1986. Long active in organized dentistry, Dr. Dugoni served as Trustee of the ADA's Thirteenth District, representing California from 1984-1987. He was a member of the ADA House of Delegates for nineteen years, Treasurer of the ADA from 1987-1988, and his nomination for ADA President was unopposed. Dr. Dugoni also completed a three-year term as a member of the council and a six-year term as Treasurer and member of the Executive Committee of the FDI World Dental Federation.

Dr. Dugoni graduated from the College of Physicians and Surgeons in 1948, maintaining a private practice for nearly forty years. He has been a leader in every dental organization with which he has been associated. Dr. Dugoni is the recipient of numerous prestigious honors and awards, including Dental Alumnus of the Year by four universities: Gonzaga University, University of Washington, University of San Francisco, and University of the Pacific. Among others, he has received the Hinman Medallion for Leadership, the Albert H. Ketcham Orthodontic Award from the American Board of Orthodontics, the Medallion of Distinction from the School of Dentistry of UOP, the Gold Medallion and Merit Award from the Orthodontic Education and Research Foundation, the Chairman's Award from the American Dental Trade Association, the Presidential Citation and the Distinguished Service Award from the American Dental Association, the Pierre Fauchard Academy Gold Medal, and a Doctor of Humane Letters, Honoris Causa, from the University of Detroit Mercy. In 1998 Dr. Dugoni was elected to the List of Honour of the Federation Dentaire International—its highest honor and limited to thirty members throughout the world.

Dr. Dugoni has also served as dentistry's representative to numerous other health-related organizations. He served on the PEW Health Professionals Commission and as an official ADA representative to the AMA House of Delegates.

Dr. Dugoni is a founding member of the National Academies of Practice. He is a Fellow of the American College of Dentists and the International College of Dentists, and holds an honorary fellowship from the Academy of General Dentistry. He has presented more than five hundred lectures, papers, clinics, and essays throughout his career and is the author of more than one hundred published articles. Dr. Dugoni is a widely acclaimed educator and a world class leader, speaker, author, administrator, and visionary.
Honorary Fellowship

The ACD confers Honorary Fellowship upon persons who are not members of the dental profession, but have made outstanding contributions to the advancement of the profession and its service to the public. These contributions may be in education, research, administration, public service, public health, medicine, and many other areas.

Honorary Fellowship is awarded to individuals who do not hold a dental degree, but have significantly advanced the profession or oral health and have shown exceptional leadership in areas such as education, research, public health, administration, public service, or related fields of health care. This is the highest honor the College bestows on non-dentists. This year’s recipient is Christian B. Sager.

Mr. Sager has been the Chief Executive Officer of the L. D. Pankey Dental Foundation and Executive Director of the Pankey Institute since 1982. In the early 1980s, The Pankey Institute was succeeding in educating and inspiring dentists, but it was having difficulty financially. Mr. Sager’s charge was to make the institute self-sustaining. Under his leadership, the institute has built the most modern and sophisticated teaching facility in the world and has purchased condominiums to house the faculty and students. Mr. Sager’s attention to detail is impressive, whether it be in the area of gaining every available tax advantage, his “tweaking” of the curricula, or his ability to hire the right person for the job. Maintaining status quo is not his repertoire.

Mr. Sager teaches in each Continuum Level at The Pankey Institute, providing dentists guidance on leadership development, financial management, practice positioning, market definition, strategic planning, and human relations. He has been heralded as one of the profession’s clearest voices on the behavioral aspects of patient care and practice management, as well as the development of a personal philosophy to guide and shape one’s dental practice.

Mr. Sager has appeared throughout the United States, England, and Japan as a featured speaker at state, regional, and national dental meetings. Recent engagements include the ADA Scientific Session and the Academy of Dental Practice Administration, Indiana Dental Association, Ohio Dental Association, Dallas Mid-Winter Dental Clinic, Thomas P. Hinman Meeting, Chicago Dental Society, and Yankee Dental Congress, among many others. He has published topical articles and has been interviewed in numerous dental publications. Although he is not a dentist, his business background and experience have provided him with a deep understanding of the challenges of contemporary practice and influences upon it.

Mr. Sager has been awarded Honorary Membership in the American Dental Association, the International College of Dentists (U.S.A. Section), and the Florida Academy of Dental Practice Administration. Mr. Sager has influenced both pre-doctoral and postdoctoral education of dentists through his publications, professional presentations, and nineteen years of dedication directing the advanced dental education courses and programs at The Pankey Institute. As a result of Mr. Sager’s efforts, thousands of dentists have not just dreamed of what can be achieved with quality comprehensive care—they have experienced it.

Award of Merit

The supporting services of dentistry are vital to the profession, providing key elements which enhance the effectiveness of dental care delivery and the growth of the profession. The ACD’s Award of Merit was established by the Board of Regents in 1959 to recognize unusual contributions in dentistry and its service to humanity by persons who are not Fellows of the College.

The Award of Merit recognizes outstanding efforts of non-dentists in roles that support the dental profession and enhance the profession’s mission and service to society. This year’s recipient is Robert W. Harpster.

Mr. Harpster is Chief Executive Officer of the Iowa Dental Association (IDA), a 1,500 member voluntary association and one of fifty-four constituents of the American Dental Association. Mr. Harpster also serves as Secretary and Chief Financial Officer of the Iowa Dental Foundation, a non-profit public foundation that benefits the public through scholarships, research, and education in areas of interest to the practice of dentistry. He joined the IDA in 1989 and has taken a key leadership role in shaping public health policy in Iowa. IDA has successfully introduced and passed numerous bills that positively impact the delivery of dental care by removing access barriers and improving the financing of that care. For the past five years, the IDA has been first in the nation for membership in constituent societies over 1,000 members.

In addressing issues relating to membership, insurance services, legislation, ethics, health in general, public relations, manpower, and investment and finance, his job has required him to be a Libertarian, a Democrat, a Republican, an independent, a technician, a mathematician, and an investment advisor. Through his strong drive and sense for accomplishing goals, he has become an authority on plumbing codes, corporate and antitrust laws, marketing techniques, and at the same time he has been able to articulate within the membership the restorative,

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diagnostic, and preventive codes. In spite of all the hats he wears, he is always available and willing to answer questions, concerns, and complaints from the profession and public.

A native of Washington, D.C., Mr. Harpster received his bachelor's degree and a Master of Public Administration degree in Urban Affairs and Public Relations from American University. Mr. Harpster has received two Presidential appointments and nine gubernatorial appointments, including "Year 2000 Committee," "State Coalition on Iowa Issues," and "Health Iowans 2000 and 2010." The State of Iowa, the Midwest, and the entire national dental community have been the beneficiaries of his talent, dedication, and his unique ability to bridge the public, legislative, and professional sectors. The impact of his efforts is felt deeply in dentistry and throughout the public sector. Mr. Harpster has become a true ambassador for dentistry.

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**Service Award**

This award is presented to recognize outstanding efforts of a Fellow of the American College of Dentists for exceptional and distinguished service to the College or to humanity through his or her professional service.

![Arthur I. Hazlewood, DDS, MPH](image)

The Service Award recognizes exceptional support of the College, the profession, oral health, or community service. This service award is being presented through a special recommendation of the Board of Regents to **Arthur I. Hazlewood, DDS, MPH**.

Dr. Hazlewood is a Chairman Emeritus of the Department of Dentistry at Our Lady of Mercy Medical Center in New York City. He has spent more than thirty years of his professional career in service to the profession, oral health, and the community at large. His efforts have spanned the nation and supported programs in other countries of the developing world. As the first Director of Dental Affairs for the City of New York Hospitals and subsequent chairman of more than one hospital dental department, he has become known as an expert in hospital dentistry and is a strong advocate of postdoctoral education.

Among a long list of outstanding accomplishments is the pivotal role he played in saving New York City's hospital dental programs from closure by government action. His background in public health has enabled him to spend his career promoting oral health practice to a broad spectrum of the population. Dr. Hazlewood's efforts have always been aimed at training and promoting the careers of younger members of the profession.

Dr. Hazlewood's list of accomplishments include successfully planning the two largest ambulatory care programs in New York City, the planning of two major teaching hospitals, his successful battles to preserve dental programs in New York City hospitals, his leadership of the American Association of Hospital Dentists, and service to the American Dental Association. His well-known talent for working with community groups, when combined with his professional planning skills, have contributed to the development of a number of community-based programs.

The excellence of his contributions to community, society, and the profession has led to a number of unusual appointments outside the dental profession. His international contributions have been recognized by appointment to the American Dental Association Health Volunteers Overseas Steering Committee. He is also recognized as a consultant to the United Nations Development Program and Senior Advisor to the Ministry of Health, Government of Guyana. His tireless efforts over the years attest to his commitment to serving the health care needs and improving the lives of the less fortunate from around the world. Dr. Hazlewood's career has epitomized service.
A common notion is that most companies are driven by profit and the bottom line. But companies can be successful because of things that do not seem to be profit oriented. For these companies, profits are byproducts of day-to-day company activities rather than the primary focus. That is the case with A-dec, Inc. of Newberg, Oregon, the largest dental equipment manufacturer in the United States. Ever since the founders, Ken and Joan Austin, started the company in 1964, some basic ideals and guiding principles have made A-dec not only a successful company, but a unique company within the dental industry.

It all started in 1960, when Ken began working for Encore, a small Oregon company. Ken was interested in the fact that Encore had introduced the first variable speed control, called the Varitrol, for a single high-speed turbine. At that time, dentistry was experiencing a revolution in dental technology with the introduction of air-driven handpieces. The first air-driven handpieces were essentially “one-speed.” Dentists using these new handpieces would have only one in the operatory. The dentist would change the speed of the handpiece by adjusting the air pressure at the source. Once the pressure was set, that is where the dentist would operate for the whole procedure.

Through his job with Encore, Ken had the opportunity to meet many dentists, and as he did, he realized dentists had cares and concerns about their profession, and he didn’t see them as people just wanting to buy handpieces. Ken remembers, “The dentists I met didn’t just want a new practice. They wanted a new look in their office and they wanted the best for their patients.” He quickly learned that there were many opportunities for him to solve the new problems that confronted dentists who wanted to use air-powered handpieces.

In the early development of air turbine technology, the first handpieces were quite large. This made it very difficult to work on the posterior portion of the oral cavity and especially difficult with child patients. The Midwest company responded by developing a pedo handpiece that could work with children or the posterior teeth. And this became the humble beginning of making choices: dentists had to run two different sizes of handpieces from one control box. Then in late 1960 or early 1961, the A-dec company responded by developing a pedo handpiece that could work with children or the posterior teeth. And this became the humble beginning of making choices: dentists had to run two different sizes of handpieces from one control box. Then in late 1960 or early 1961, the

"The dentists I met didn’t just want a new practice. They wanted a new look in their office and they wanted the best for their patients.”

Mr. Westover is Senior Project Manager at A-dec, 2601 Crestview Drive, Newberg, OR 97132; (503) 538-9471 Fax 537-2760.

Ken Austin is the 2000 recipient of the Award of Merit from the American College of Dentists.
handpiece selector valve that allowed the dentist to control all three from one box. With Ken as the chief engineer, along with seven other employees, Encore manufactured the three-way selector valve. Ken quickly found that dentists had many things on their wish lists, and this gave him the opportunity to help solve problems. He saw an opportunity to make a difference in the dental profession and positively affect oral health throughout the world.

**Quality Comes First**

At A-dec, "quality" is reflected by components of a product that do what they are supposed to do. Product dependability is a key measure of quality. Parts that are put together must fit properly, such as when a dental light is attached to a light post. Dental tray holders are supposed to be level. Glue is supposed to stick. Even with the "latest and greatest" adhesives available to manufacturers today, A-dec must see proof of reliability before using such products. Design decisions are all made on the basis that dentistry is a long term, long life commitment, not short term. Ken has said, "We know one of the finest restorative materials is gold, and there are many materials that work well on the short term, but are not acceptable for a long term fix."

He continues, "There's nothing better than learning from experience. In our first six months on the air vacuum system, we had a piece come loose because it had been glued, even though we were assured by the supplier that the glue would work 'forever.'" With that experience, A-dec developed a hierarchy of fastening, all for the purpose of using the right materials and hardware for the job.

Ken firmly believed that high quality would reduce failures in function and longevity. He felt so strongly about this, A-dec published a little book for the profession titled, "What to Look For When Buying Dental Equipment." Trying to avoid the potential for commercialism in the book, A-dec set out to simply educate the profession, just like the dental profession needs to educate patients. From the very beginning, Ken did not want to be criticized for failure of the product. A constant theme over the years at A-dec has been "appropriate technology" and "appropriate procedures" that meet the needs of the profession. A-dec's belief is that appropriate technology, not high technology, is what offers value to the dentist.

**Customers Are The Focus Of Everything**

Simply stated, Ken and Joan want to treat people like they wanted to be treated. They practice the concept of TOPS (The Other Person's Shoes). No one enjoys being put on hold, so what could A-dec do to keep it to a minimum? In the beginning, before A-dec had access to information through its computers, the customer service department was located next to the final assembly department for high touch and immediate access. In 1976, A-dec instituted a 5 a.m. shift for customer service so that they could serve customers on the east coast at the beginning of their work day. So instead of "managing by walking around," Ken and Joan practiced "management by being in the other person's shoes."

The TOPS principle applies through the whole process of A-dec's business. When a part is designed and a drawing in made, the first customer becomes the person fabricating the part — in A-dec's case, the machine operator. The drawing must be easily interpreted. The part must be able to be easy for the machine operator to produce. The second customer is the assembler. Parts should be easy to put together. A-dec's territory representatives are the next customer. They must be able to easily present, show, and tell about the product. If they can do that, then the next customer, the dental distributor, will also be able to present, show, and tell about the product and easily place an order for it. Then it comes back to our own order processing people. They should be able to easily process an order for it. Then, the product should be easily shipped and received. Then, easy to install. And of course, it must be easy to use by the dental team. Not only that, but easy to clean and service. And finally, it must be good and appropriate for the dental patient. In every one of these levels, we

**A-dec believes that it can be a leader by competing with itself instead of following its competitors.**

**Continuous Improvement**

A-dec believes that it can be a leader by competing with itself instead of following its competitors. Continuous improvement is looking at what you have done and how you can make it better. This applies whether it is at the beginning of design or during the production process.
Partners with Dentistry

cycle itself. While what we have done in any given moment might be our best, being content with that is the opposite of continuous improvement.

Ken and Joan feel that employee involvement is another way of recognizing people for their individual abilities.

Continuing education from the dentist’s standpoint is continuous improvement. Reading, study clubs, and continuing education courses are all an effort by professionals to improve their own work, and they receive a great deal of satisfaction in improving their skills and knowledge.

A manufacturing company such as A-dec views continuing education in the same manner. A focus on keeping up to date in technology and new manufacturing processes gives the same type of satisfaction. Employees frequently join field equipment installation teams to learn more about how the product is installed and set up. The company supports ongoing training and education, conducted both on site and in local colleges. Tuition reimbursement for college courses has been a benefit since the early days of the company.

Continuous improvement usually comes from little complaints or little suggestions, not big suggestions or big complaints. When Ken first produced an air/water syringe, a local dentist observed that the syringe had a bit too much pressure when he was working on the anteriors. (The pressure was not a problem on posteriors.) This prompted A-dec to create a variable flow control in the syringe valve. The change was made without a major demand or survey, because it only made sense to be able to select the desired amount of flow. Continuous improvement brings us back to TOPS. The dentist didn’t want to splash water on the patient’s bib, tie, or glasses.

Until then, Ken had never given a thought to the importance of variable air flow. Then he learned that the dentist could move impression material with air flow and could achieve fewer voids by slightly blowing on it. And if there wasn’t flow control in the syringe, the air pressure would just blast the material out further.

So continuous improvement comes in little steps. Questions like, “This is great, but how do I fix it?” or “This works fine, but how do I know if I’m using it right?” all help in the process. To be effective in continuously improving a product or a service, A-dec believes they must be their own worst critic. To be its own toughest competitor.

Employee Involvement Way Of Life

If employees feel like they are part of the company and have ownership in the day-to-day operations, then when the company needs help during tough times, the employees feel like the company is part of their own family. Guests who visit the company cannot leave without thinking, “Wow, I could never imagine people being so happy at their work.”

Ken and Joan feel that employee involvement is another way of recognizing people for their individual abilities. When A-dec employees can make suggestions for improvement without fear, the company ends up with higher quality products and better manufacturing processes. Ken has said, “We don’t think we should have inspectors checking our people, we think the people should be checking themselves. Nobody knows better about how the machine they are using is working than the operators do, certainly not the department managers.”

Recognition can be based on popularity or politics, but if the recognition occurs through employee involvement as it does at A-dec, it means that employees are recognized on a minute by minute basis. Employees perform at their fullest potentials. They are not overextended, but instead are fulfilled with appreciation for each other. Ken and Joan believe that people can get a paycheck anywhere, but they won’t always be appreciated everywhere. Appreciation through employee involvement has been a major factor in A-dec’s success.

Dealers and Suppliers Are Our Partners

A-dec has been successful because of its supplier and dealer partners. To develop good partnerships, A-dec suppliers are expected to be good coaches, which in turn helps A-dec coach its distributors and ultimate customers, the dental professional. A-dec’s suppliers realize the company’s mission, goals, and

So much of what has influenced Ken and Joan Austin’s management philosophy at A-dec over the years comes from other successful entrepreneurs and businesses, such as in the case of Henry Ford. In his book, Today and Tomorrow, Ford outlined six principles for successful companies:

1. Quality comes first
2. Customers are the focus of everything
3. Continuous improvement
4. Employee involvement is a way of life
5. Dealers and suppliers are our partners
6. Integrity is never to be compromised
culture. For many years, A-dec has asked its suppliers to participate in product development so that their process and products can be compatible with A-dec's end product. A-dec expects that the dentist will use the company's products for a very long time, just like A-dec expects to use its factory machinery for a long time. Suppliers need to know this.

Ken and Joan have always sought the greatest dealer partners they could get. They realized that to serve approximately 150,000 dentists, they had to rely on top-notch dealer partners. Without the 5,000 dental representatives of these partners, there would be no way to present, show, and demonstrate A-dec's products.

Many manufacturers vie for the time of a good dental dealer. A-dec has recognized the need to develop excellent dealer relationships, just like the dentist must develop excellent patient relationships. Ken and Joan understand that they are in a relationship and service industry, not a commodity industry. There are products used in dentistry that can be considered commodities, but almost every new material and device requires a helping hand to get the best performance for the practitioner.

A-dec has had a strong reputation for its technical service training, sales training, and advanced sales training seminars. More than 11,000 service technicians have attended the tech training seminars alone since 1978. As part of A-dec's dealer agreement, technicians receive training on all aspects of installation and service on current and older products. Sales training seminars are actually professional development in nature, with the main focus on each individual's strengths and capabilities. Participants are not taught to peddle product. Instead they are taught to provide a high level of service and consultation to their clients. It is a much more professional approach.

Ken has said, "We as a manufacturer think one of our major jobs is coaching all the people who get our products to the dentists, so that dentists can use the product and that it will best fit their needs."

**Integrity Is Never Compromised**

Ken and Joan believe that integrity is more private than public, and can be measured more by performance than by words. When a company tells somebody they will ship a product on a certain date, they should do everything possible to ship it on that date. To accomplish this requires many of the principles already mentioned in this article.

In developing relationships with its customers, A-dec has open dialog on a confidential basis. And when A-dec's customers give information to the company in confidence, A-dec's people honor that confidence. Often A-dec will work with dental schools and share technical information and confidential designs, and the expectation is that the company can do that without worrying about the trust being compromised.

Many years ago, Ken and Joan established a policy to pay employees equal to, or better than the prevailing wages in the community. And the company has been successful in adhering to that policy over the years. The policy was not just words. They were backed by performance.

Regardless of whether they are large or small distributors, all of A-dec's dealer partners pay the same price for the company's products. If pricing concessions are made to one, they will be made to all. Ken and Joan believe that "favorites" and "fairness" do not mix.

**Applying the Principles**

From the beginning, A-dec has applied these principles in its role as a problem solver for the dental profession. The company has worked with most all of the dental schools in the United States and many overseas to develop solutions for problems unique to each institution. In many cases, these solutions could then be applied to the general dental community in the form of retail products. A-dec doesn't make it a practice to tell any customer what is best for them. Instead, the company listens and solves problems.

What is in store for the future of dentistry? With a constant parade of new dental materials, technology, and government regulations, manufacturers will need to work even closer with dentists and the dental industry to keep up with new requirements. A continued focus on how to support productivity in the dental operatory will be a must. Containing costs will be a must. Expanding dental care to unserved areas in the world will be a must. Ken, Joan, and all of the A-dec team believes that they'll keep up with all of this only if they listen to and support all of their customers and follow the principles that have made A-dec the largest dental equipment manufacturer in the United States.
Oral Care Clinical Trials at Hill Top Research

Stephen Mason, PhD

Abstract
Oral health care products generally require laboratory or clinical testing prior to being introduced to the market. Companies that develop such products have three options for such testing — their own facilities, dental schools, or clinical research organizations (CROs). Laboratory or clinical trials involving subjects can be conducted to test claims of safety and efficacy as well as cosmetic and therapeutic claims. CROs, which conduct such research on a fee-for-service basis in an independent environment, are an attractive alternative in many cases.

Over the last thirty years, some of the most dynamic, revolutionary changes to affect consumer goods have taken place in oral care. With no shortage of aggressive competition, mergers, and acquisitions, the fast-moving consumer oral health care industry is now dominated by six major multinational corporations. Selling a variety of brand name products around the world, these six companies account for perhaps more than 70% of the available consumer oral hygiene market sales worldwide (see side bar).

A superficial examination might imply that with dental anatomy, oral health, the potential diseases and conditions that can be influenced by brushing and rinsing being constant, coupled with relatively unchanged basic ingredients, product development strategies and toothpaste production technologies, little innovation could be possible. Guess again.

Oral health aids, once limited to toothpaste, mouthrinse, and toothbrush now extend to chewing gums, floss, breath mints, breath films, dental sticks, whitening strips, and other products, most of which act as delivery systems for a variety of "active" ingredients.

A simple trip to the local supermarket reveals that the oral care section is extremely large, with a vast array of choices available that changes almost daily. Oral health aids, once limited to toothpaste, mouthrinse, and toothbrush now extends to chewing gums, floss, breath mints, breath films, dental sticks, whitening strips, and other products, most of which act as delivery systems for a variety of "active" ingredients.

Innovation Drives the Category
Although rarely exciting in itself, oral hygiene is vitally important for everyone. Manufacturers have made significant investments in the development of new technologies that have improved the performance of some products and expanded the therapeutic applications of others. New product development, combined with effective outreach via professional and consumer advertising and school-based oral health education initiatives have attempted to encourage better and more frequent usage of homecare therapies. In spite of this, the overall per capita consumption figures of toothpaste and toothbrushes are not increasing, and in fact they fall significantly below that recommended by dental health professionals. For example, it is generally recommended we brush our teeth twice a day with 1.0 to 1.5g of dentifrice. It is also recommended that we replace our brushes approximately every two months. If this was the case, the resultant per capita usage would be approximately 800g of dentifrice.

Dr. Mason is Director of Oral Care Business at Hill Top Research, Inc. 900 Osceola Drive, West Palm Beach, FL; smason@hill-top.com.
(around eight, 75ml tubes) and six toothbrushes a year. The reality is few achieve this, with actual mean per capita consumption figures for most countries, including the USA far below these levels. In response, manufacturers have literally gone back to the drawing boards to explore further product innovation with the hope that consumers would be willing to pay premium for new value-added products.

For example, major therapeutic ingredients have been incorporated in oral hygiene products in the past decades. Packaging innovation has also kept a similar pace, as have delivery systems for oral hygiene benefits. The consumer is now always provided a wide variety of choices able to suit his or her own particular needs.

Oral care research is, however, a highly specialized and relatively “niche” community. Its premier society, the International Association of Dental Research (IADR), boasts approximately 12,000 members, academic and industry combined. However this society covers all aspects of oral care research, from dental surgery through prescription pharmaceuticals to consumer products. Unlike the pharmaceutical industry, most of the fundamental research necessary to design and deliver new and effective oral care products either takes place within industry, or is directly supported by industry in an academic environment.

Much of the global innovation in the oral care marketplace has been achieved by the companies focusing their R&D, most notably in North America, together with product development strategies on the end consumer. Concepts and formulations are often centrally developed and standardized to maximize R&D investment returns. This has resulted in a more streamlined development process focused principally on either clinical research or “evidenced-based claims” as the main mechanism to differentiate products from others in the minds of both the profession and the consumer. This “positioning” in the marketplace is further reinforced by representative professional bodies such as the American Dental Association, which require companies to have conducted at least two, appropriately designed, independent clinical trials — generally randomized, double-blind studies conforming to ICH/GCP guidelines — in order to obtain the relevant Seal of Approval, e.g., for plaque and gingivitis, whitening, caries, etc.

There are several advantages to using CROs, perhaps the most important being speed, confidentiality, and access to a dedicated group with extensive experience in the design, planning, and execution of research projects and the objectivity that comes from independent results and conclusions.

The Six Leading Oral Health Care Product Manufacturers and Some of Their Products

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<tr>
<td>Colgate-Palmolive</td>
<td>Colgate, Sorriso/Kolynos, Denragard, Plax (ex U.S.)</td>
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<td>Mentadent, Pepsodent, Aim</td>
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<td>Listerine, Plax (U.S.)</td>
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<td>Gillette</td>
<td>Oral B, Braun</td>
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Clinical Trials of Oral Care Products

Development of oral care products follows similar product development strategies regardless of the product form and intended market positioning. Once a product has been designed and developed to the stage where it requires clinical evaluation, the choices available to companies for funding evaluation and testing programs prior to the launch in the commercial market place are essentially limited to three options.

Internal Resources. Major corporations have the expertise and knowledge to manage the clinical evaluation program and evaluation internally. However, the use of internal resources can be challenged for bias if the conclusions are questionable. Further, in these times of limited resources, industry has to consider whether resources could be better used elsewhere since clinical research is time consuming, labor intensive, and a very intense cyclical activity, highly dependent on the pipeline from the product development colleagues.

The growth of outsourcing either to academic institutions or contract research organizations — CROs — in recent years indicates that large corporations are outsourcing a growing number of basic R&D activities. This is likely being done for a combination of reasons, including
objectivity, internal cost control, and effective overhead use.

If a company does not have the resources or decides it does not want to manage or perform the tests internally where does it go? It has the same two options, partner with an academic institution or with a contract research organization.

Academic Institutions. Most academic institutions encourage industry-sponsored research since it represents a significant source of funding and publications. Working with universities can have significant benefits commercially, since the support of an “opinion leader” who has tested and evaluated the product can potentially impact other researchers and more importantly, general practitioners, once the product has been commercialized. Additionally, once the data have been peer reviewed and published, studies are generally regarded as beyond reproach, opening the door to further marketing activities.

However, several factors may also mitigate against using an academic institution. The responsiveness and elapsed time involved may not always fit with the commercial timetables of the industry sponsor. This can be critical for companies that keep a close eye on product launch and strategic planning. Confidentiality may also be a concern. Sometimes there are concerns over execution of product tests, as when measurement of clinical indices is assigned to a relatively junior graduate student rather than the more seasoned investigator. There are the ever-increasing university overhead charges to contend with. Finally, universities are beginning to write clauses in contracts that permit them to publish the results of trials without giving the sponsor the right to edit or censor findings.

Perhaps these reasons explain why evaluation of consumer products involving partnerships with academic institutions tends to focus on smaller and more methodological/mechanistic (proof of concept) studies rather than larger pivotal “claims substantiation” type of studies.

CROs. Contract research organizations offer a valuable pool of independent, highly qualified, and experienced personnel and resources that companies of all sizes can access on a fee for service basis.

There are several advantages to using CROs, perhaps the most important being speed, confidentiality, and access to a dedicated group with extensive experience in the design, planning, and execution of research projects and the objectivity that comes from independent results and conclusions. This can be a considerable advantage in a highly competitive and often litigious industry. Obviously, these organizations are for-profit commercial businesses and therefore cost may need to be balanced against quality of advice or timely execution of projects.

Therefore perhaps the crucial consideration any company has to make prior to any initiating decision on a particular test or trial is the usage to which the data may be put following completion of the research.

While CROs are extremely prevalent throughout the global pharmaceutical industry, within the highly specialized dental community, only a handful of such organizations exist.

Perhaps the largest of these is Hill Top Research, Inc., whose dental division is based in Florida, with additional facilities in Cincinnati, Ohio, Chelmsford and Manchester, UK, and throughout the world through its network of contacts and alliances. Hill Top Research, Inc., offers both product clinical trials and evaluation and strategic consulting for international product development and launch.

Ultimately the choice of which organization to use for the evaluation of a product depends on many factors, including marketing objectives, timelines, available funding, previous experience, type of study, available dental investigators, legal requirements and constraints, and more.

**Examples of Studies Used to Substantiate Product Performance**

The consumer oral care category is generally considered “cosmetic” around the world and therefore self-regulated unless “drug” claims are made for products.

The American Dental Association has a voluntary Seal of Approval program in which companies submit their scientific data and marketing claims for peer review in order to obtain an endorsement (seal) for that product. However, since these programs are voluntary many other products may be on the market without such endorsement, making it confusing for the consumer. This is especially true when several variants or brands from a manufacturer with the seal on one particular brand, are marketed alongside others without endorsement.

Therefore perhaps the crucial consideration any company has to make prior to any initiating decision on a particular test or trial is the usage to which the data may be put following completion of the research. Clearly this can vary from marketing claims substantiation, ADA submission, academic peer review, or simple internal corporate approval to launch. Since regulation of the marketplace stems from the industry itself, it is not uncommon for companies to litigate against each other with regards to commercial claims. The larger branded goods manufacturers generally try to provide the highest level of data possible (e.g., a clinical trial) to support their particular marketing claim, especially if some superior benefit is claimed. This requires significant investment in clinical studies. However on occasions conflict-
The Evolution of Therapeutic Ingredients, Packaging, and Delivery in Oral Health Care Products

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<thead>
<tr>
<th>Ingredient</th>
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<th>Benefits</th>
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<tr>
<td>Fluoride</td>
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<td>Anti-cavity</td>
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<td>Potassium nitrate</td>
<td>1970s</td>
<td>Relief dentinal dentinal</td>
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<td>Crystal growth inhibitors</td>
<td>1980s</td>
<td>Hypersensitivity</td>
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<tr>
<td>Triclosan</td>
<td>1990s</td>
<td>Calculus prevention</td>
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<td>Bleaching systems</td>
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<td>Whitening, stain prevention</td>
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Packaging

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<td>Laminate tubes</td>
<td>1980s</td>
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<tr>
<td>Dispensers</td>
<td>1980s</td>
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<tr>
<td>Bottles (liquid dental cream)</td>
<td>1990s</td>
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<tr>
<td>All plastic laminate tubes</td>
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Delivery Systems

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<td>Mouthrinse</td>
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<td>Toothbrush</td>
<td>1990s</td>
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<td>Dental chewing gum</td>
<td>1990s</td>
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<tr>
<td>Floss with active ingredients</td>
<td>1990s</td>
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<tr>
<td>Breath films</td>
<td>2000</td>
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<tr>
<td>Bleaching strips</td>
<td>2000</td>
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Benefits

- Anti-cavity
- Relief dentinal
- Hypersensitivity
- Calculus prevention
- Plaque and gingivitis
- Whitening, stain prevention

**Partners with Dentistry**

Because the relative size of the dental research industry, there are few trained, validated, and available dental examiners.

Strata the effectiveness of formulation only if it has been modified slightly from some previously developed version which has been tested in a human caries clinical trial.

**Human Clinical Trials.** Oral care product trials are an extremely complex undertaking, requiring significant planning and logistic project management from subject volunteer identification through study completion. Combined with the ever-increasing recommendations for Good Clinical Practice (GCP) in order to protect the health of volunteers and patients, as well as their privacy, the need for independent testing and confidential research prior to launch it is not surprising that the use of CROs is increasing to perform this type of work.

At its simplest, a clinical trial can be designed to substantiate or refute virtually any marketing claim, whether it is a primary efficacy therapeutic claim or a secondary “evidenced-based” marketing claim. In such cases the number of data points, design, duration, and other selections are of critical importance.

Typically primary efficacy therapeutic clinical trials are performed in the following areas: dental caries; calculus (tartar) prevention; plaque removal, prevention of plaque re-growth; reduction of gingivitis; periodontal disease; dental hypersensitivity. “Evidenced-based” mar-

ing clinical study results can be observed from different manufacturers supporting their product in comparison to a competitor. The differences can be the result of small, apparently insignificant changes in study design or protocol which again can result in litigation over the veracity of data. As the stakes rise, the importance of sound clinical research increases.

Smaller manufacturers may, however, consider equivalence to existing, clinically proven product is an acceptable level of proof, especially if they are not making novel or superiority claims. They may decide they can substantiate their claims with smaller, less costly laboratory in vitro comparison studies.

The choice and robustness of the test, (e.g., number of data points, design, duration, and other factors that drive up cost and elapsed time) therefore becomes of critical importance and should be balanced against business goals and objectives.

**Laboratory or In Vitro Evaluation Studies.** Two categories of laboratory testing exist: safety (abrasiveness, surface changes) and efficacy (anti caries, calculus, anti microbial, plaque, stain, toothbrush wear efficacy, etc.).

An example of safety evaluation could be the effect of the powerful bleaching agents currently used in professionally applied whitening products on the structure of enamel or dentin of the teeth. The purpose of this type of experiment is to determine if any sub-surface or even surface changes can be detected with prolonged exposure to such agents.

An example of efficacy evaluation is the measurement of performance of fluoride availability and release from a dental cream formulation. The addition of fluoride to dental creams is regarded as relatively routine, and both the Food and Drug Administration (FDA) and ADA will accept in vitro data to demon-
Partners with Dentistry

Product manufacturers must also decide which investigating dentist to employ for the study. Examination and measurement of most dental clinical indices are a relatively judgmental process, requiring the examining dentist to be trained and calibrated. If more than one examiner is used on a study, inter-examiner reliability needs to be taken into consideration. Yet, because the relative size of the dental research industry, there are few trained, validated, and available dental examiners. Equally, since examiners tend to focus on a specialty or particular dental index, the choice of an appropriately trained and validated examiner may make the difference between success and failure of the trial. Clearly the use of CROs that have ready access and the ability to work with dental examiners rather than being restricted to one or two in-house choices offers the greatest flexibility to the customer.

Appropriate statistical analysis also becomes a key consideration since this is sometimes an abused area in clinical trials. It is of particular importance if the effect of the product is such that a debate regarding "clinical significance" and "statistical significance" is encountered. Often oral product clinical trials compare the performance of a new product with either a placebo or a comparator requiring that both a within-treatment and a between-treatment analysis be conducted. Clearly the use of scientifically and financially independent CROs that have ready access to the full range of statistical tools and techniques can prove to be important.

Other Tests. Other possibilities exist which are not strictly clinical trials, but do involve evaluation with healthy human volunteer subjects, and therefore, in general, should be performed using similar standards, including ethics committee approval, informed consent, etc. Typical studies in this category include: consumer preference, taste characteristics, sensory evaluation, and oral irritation assessment (not efficacy).

Although not necessarily clinical trials, the requirements of performing these studies to the appropriate standards remain the same, and in order to protect the health of volunteers and patients, as well as their privacy, the need for independent testing and confidential research is ideal for CROs.

The three types of testing and evaluation described can be performed on most oral care consumer and professional products such as toothpastes, mouthrinses, chewing gums, dental floss, toothbrushes, dentally applied materials, and prescription oral care products. Additional information on U.S. specific evaluation programs by the ADA/FDA, industry and academic oral care research has been collated in a single issue of the Journal of Clinical Dentistry, 1995, 6, 157-184.

Unfortunately on occasions, conflicting study results can be observed from different manufacturers supporting their product in comparison to a competitor. This further supports such valiant attempts by the American Dental Association Seal of Approval program to review and assess two independent, double-blind, appropriately controlled and statistically analyzed clinical trials as part of its approval process. Clearly the use of scientifically and financially independent CROs that have ready access and the ability to work with available dental examiners and statistical experts offers the greatest flexibility to the customer and should have the greatest impact in the academic, commercial, and professional market place.

Conclusion

Attempting to predict future trends in a field that has experienced such tremendous innovation over the past two decades is both difficult and potentially misleading. Clearly, the trend to provide added value and therapeutic benefits to the consumer demands that clinical research continues to drive all players in the category from toothpaste to chewing gum. However, this inexorably moves the category ever closer to the pharmaceutical and drug industry as benefits become more therapeutic and potentially regulated.

So while historically the oral care industry was the domain of the soap and personal care industry, consumer preferences combined with recent mergers and acquisitions in the pharmaceutical industry, (two major pharmaceutical companies now have a significant stake in the oral health category — GlaxoSmithKline and Pfizer), the oral care industry will continue to evolve. And with that evolution will come the continued growth and importance of CROs dedicated to oral care product research, offering ever widening consultative and investigative services to cover all aspects of the product development process and providing a valuable pool of expertise and knowledge. Certainly it is anticipated that even more sophisticated clinical design and analytical techniques will be necessary to continue to drive the "evidenced-based" marketing claims of the industry, and those organizations best positioned to support the industry will be those that can best combine the requirements of the fast moving consumer goods industry with the strengths of a pharmaceutical development approach.
Locum Tenens—A Concept It Is Time for Dentistry to Embrace

Forest Irons, DDS

Abstract
As shown by success in other health professions, dentists can effectively stand in for other dentists who need to be absent from their offices for reasons of health, family matters, education, and many similar reasons. Locum Tenens agencies can facilitate such temporary substitutions and are especially valuable in maintaining productive use of fixed overhead. Examples of situations where a Locum Tenens arrangement may be beneficial include practice transitions necessitated by health problems, educational opportunities, temporary leaves due to pregnancy or other family matters, wellness interventions, and management of dentist shortage areas.

Locum Tenens is a concept with a long and successful history in the health professions. However, dentistry in the U.S. has shown considerable reluctance to widely use it, in spite of rather obvious and substantial benefits that are readily available to practicing clinicians, especially the solo general dentist. A Latin term, meaning one holding a place, Locum Tenens is the use of qualified professional personnel to substitute for colleagues who are absent from their practices.

Locum Tenens has been used effectively in a number of countries for at least fifty years in the areas of medicine, dentistry, nursing, pharmacy, and veterinary medicine. In the United States, Locum Tenens enjoys broad use in medicine, nursing, and pharmacy, most especially in medicine. For example, most of our hospital emergency services would struggle to provide care were it not for the availability of Locum Tenens physicians, physician's assistants, and nurses. Dentistry on the other hand, has struggled with the concept, most likely due to several factors: dentists by training are unaccustomed to sharing patients, unlike physicians; most general dentists in this country remain solo practitioners; this has led to a widespread notion among clinicians that each has a particularly unique approach to clinical care. As a result, many dentists have developed a baseless fear that patients will relate to only one caregiver. Of course, the many successful practice transitions/sales, associate integrations, and actual interim care activities disprove this on a daily basis. If dentists can begin to overcome this insecurity that "no one can come into my kitchen and cook but me," the profession will realize advantages from which so many other professionals and patients alike have been benefiting for so long.

Stress relief, efforts to increase productivity, patient access, employment opportunities, work flexibility, caring dentist programs, dental faculty retention, manpower distribution, contingency planning, family/dependent security, retirement transition options, office staff morale, and learning opportunities are among the issues which have the potential to be positively impacted through the use of Locum Tenens.

Locum Tenens in Practice
Perhaps before enlarging upon the applications of Locum Tenens to dentistry and the potential benefits to be gained, a description of Locum Tenens service dynamics and a profile of an established U.S. service company would be insightful to the uninitiated.

An active general (specialty coverage contains special issues) dentist who wishes to take elective time away from practice transitions/sales, associate integrations, and actual interim care activities disprove this on a daily basis. If dentists can begin to overcome this insecurity that "no one can come into my kitchen and cook but me," the profession will realize advantages from which so many other professionals and patients alike have been benefiting for so long.

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the office, or who is forced into a non-elective absence due to an illness or disability, faces at least two significant and immediate challenges: (a) loss of potentially substantial amounts of revenue (which can never be recovered) combined with ongoing overhead obligations, and (b) denial of patient access and in most states, suspension of dental hygiene protocols. For any small business, interruptions of activity, regardless of cause, always carry negative implications. A dental practice is no exception. However, if a practice owner chooses to contract with an established Locum Tenens resource, most practices can continue to function very close to normal for as long as necessary until the owner can resume activity.

To initiate the process, a standard service contract is generated for the anticipated duration of absence. The Locum Tenens service company then makes an appropriate match from available independent contractors based upon comprehensive information about the practice and the contractor. (Part of each contractor interview process is designed to facilitate these matches.) Once a service provider has accepted a work option, the two parties are put in contact to finalize details and discuss issues such as hours, unusual techniques, referral protocols, lodging, etc. One of the distinct pleasures of Locum Tenens service is that contractors are charged with clinical care responsibilities exclusively. The host office staff performs all usual and customary practice administration functions, and the Locum Tenens service is responsible for all details involving independent contractors, including pay, logistics, and problem solving.

Typically, a reasonably experienced contractor dentist will maintain at least 80% of normal office production, assuming routine scheduling. At this level of income production, a service client can expect to shelter sufficient revenue to cover fixed and total overhead expenses, the Locum Tenens fees, and depending upon the client’s revenue-to-overhead ratio, in some cases actually generate a modest net profit. However, safely recovering the ever-present fixed business overhead, especially that of a sole proprietorship professional endeavor, is obviously the most attractive financial benefit to be realized.

It should be noted that comprehensive Locum Tenens agreements include fair and equitable covenants to expressly protect a client’s staff and patient base. Fortunately, from an historical perspective, this has rarely been an issue. By contrast, “mutual aid” agreements favored by some study groups or small dental societies either lack these provisions or they are in practice unenforceable. They also do not cover elective down time, which accounts for the majority of annual revenue loss and historically they tend to fall apart when an absence is prolonged. This is understandable, as attempting to focus on another’s practice while running one’s own is difficult and often creates awkward conflicts of interest.

In some cases, by mutual agreement, a service contract may be extended and altered enabling contractor and client to work together in the office until the client is fully recovered and physically able to handle a full patient load. In addition, although the Locum Tenens service is by design not an employment agency, on occasion a “temp-to-perm” or buyout arrangement may become the most advantageous long-term solution for all parties.

History

The origins of all the aforementioned activity and Forest Irons & Associates, Inc. began to evolve in 1982. Dr. Irons, having spent fifteen years as a dental educator, became aware of the Locum Tenens concept from a colleague who had witnessed its success abroad. Convinced of the concept’s merits, aware of its extended history, and sensing an obvious need for its availability in our own country, Dr. Irons left the University of North Carolina in May of 1983, incorporated Forest Irons & Associates and began offering Locum Tenens services, initially to general dentists throughout North Carolina. Challenges of investment capital, licensure restrictions, quality control, education, and awareness have combined to slow the pace of expansion and availability of service. Nevertheless, Forest Irons & Associates currently offers Locum Tenens service to dentists in thirty-eight states and throughout Canada. The company’s overall goal remains the ability to assist all U.S. dentists wishing to benefit from interim manpower assistance.

The success of the company to date (over two-thirds of requests for service are repeat clients) seems to be due largely to a strong sensitivity to the very personal nature of such interactions, fairness of fees, and an ongoing intense effort toward quality control. The success or failure of Forest Irons & Associates, Inc. however, is not the real issue. The multiple applications of Locum Tenens to dentistry hold so many potential benefits that the concept can no longer be ignored. Furthermore, based upon current trends in our profession, the advantages before us will only be enhanced with time.

Applications

The role of stress in dentistry is well documented. Equally impressive are the efforts and ideas that have come forth regarding relief from stress and its many manifestations. Unfortunately, regular extended quality time away from the office is rarely promoted by consultants as an integral part of comprehensive stress management protocols. Established practitioners could easily delete a minimum of six to eight weeks per year from their work through the use of

Safely recovering the ever-present fixed business overhead is obviously the most attractive financial benefit to be realized.
Locum Tenens, while keeping the office on its regular schedule. Few would deny this more relaxed pace of practice has positive implications regarding incidence of illness and disability, as well as quality of life issues.

For the foreseeable future, it is estimated the dental profession will experience 4,500 deaths and permanent disabilities annually. In some cases, the affected practices will be too degraded to have a transition value. However, experience has shown us that if guided by an experienced transition consultant and actively maintained, many practices can be efficiently transitioned at fair market value. A practice closed because of death or permanent disability will lose up to 80% of its value in sixty days. In many of these instances, the cash thus generated is essential to a dentist and the estate. Regrettably, only a small percentage of dentists are positioned to retire without relying upon social security. Locum Tenens, with its non-competitive covenants and structure is an ideal complement to these types of transition resolutions.

It is widely known that dental education is engaged in a crisis regarding faculty retention and recruiting. Two significant reasons for the situation are woeful salary levels relative to the private sector and little on the horizon in the way of viable relief. Although not a complete solution, dental schools providing clinical faculty an option to perform Locum Tenens six to eight weeks per year could effectively increase their annual base salaries upwards of $20,000. In addition, since historically few full-time faculty members have successful private practice backgrounds, these experiences will (as realized from my personal endeavors) make them better teachers. In many cases, participating faculty will also be able to observe firsthand their curriculums efficacy. For those schools relying upon substantial part-time faculty, more time for teaching could be released if those people could leave their offices without fear of down time and the attendant loss of revenue.

The percentage of women dentists in our workforce has been growing for a number of years. Furthermore, this trend appears to be continuing. Women have justifiable issues, in particular childbearing, which conflict with conventional private practice expectations. Shifting this paradigm and integrating Locum Tenens into the workplace has the potential to provide excellent avenues for women practice owners who desire to balance professional and personal endeavors, for those who have put off ownership for the same reasons, and also for those who, for any number of reasons, simply require ongoing workplace flexibility.

For those familiar with the intervention process involving victims of substance abuse, it is well known that a major hurdle to voluntary admission to treatment centers is how to maintain the practice. This period can be ninety days or more, depending upon the circumstances. Dentists brought to the point of acknowledging their illness, often (realistically) balk at the prospect of prolonged office inactivity. Less commonly known, is that these illnesses are rarely one-dimensional. They are often accompanied by complications regarding family and finances. Therefore, closing an office can seriously exacerbate an already difficult situation. Needless to say, confidentiality is of paramount importance in dealing with intervention. Over the past eighteen years, Locum Tenens has proven to be an outstanding resource when summoned to participate in these unfortunate, but all too common occurrences.

Distribution patterns of dentists have been a challenge to the profession for years. Supplying underserved areas continues to be very difficult in spite of various incentives, which have been offered in an effort to attract dentists away from more desirable and often oversupplied communities. This is a complex problem which will require assistance from a number of agencies working together to solve. As an interim measure and in support of these efforts, Locum Tenens use can provide some measure of relief, short term and long. Living in one community and traveling to another, often distant worksite is simply part of the job for a Locum Tenens contractor.

**Conclusion**

The areas mentioned above represent only some of the ways Locum Tenens can positively impact the dental profession when effectively implemented. Unfortunately, a broad majority of clinicians remain unaware of the concept. Others seem to have a partial understanding but restrict themselves to conventional routines. To be sure, Locum Tenens is not universally applicable. There are many practices that have become, intentionally or otherwise, quite difficult to be attended by anyone outside the owner. (Unknowingly, these practices likewise are nearly impossible to transition, regardless of their value.) Nevertheless, there are thousands of dental offices throughout the country that are well staffed, perform good quality general procedures, and have a vitality very much worth preserving. Through persistent education and efforts towards awareness, these individuals, their staffs, and patients will come to benefit from what is essentially — dentists helping dentists.

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**Integrating Locum Tenens into the workplace has the potential to provide excellent avenues for women practice owners who desire to balance professional and personal endeavors.**

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**Partners with Dentistry**
Partners with Dentistry

Helping Dentists Manage Accounts Receivable

Jack Scott, President and CEO

Abstract

First Pacific Corporation (FPC) has worked with dental practices since 1961, providing personal services that optimize practice performance. In addition to being the premier service provider for administrative tasks in dental offices, they supply state-of-the-art hardware and accounts receivable management software. FPC designs and teaches practice development strategies, deliver on-site training, and much more. FPC is dedicated to the long-term professional success of dental clients, their staff, and their practices through a unique, integrated package of services. As a family-owned business, with headquarters in Salem, Oregon, FPC employs approximately two hundred staff who serve practices in twenty-two states.

Years ago, when the company began serving optometrists and dentists, it operated as Health Accounting Services, Inc. (HASCO, Inc., 1961-1972). HASCO was a pencil and ledger service when I started with the company in 1965, one year after marrying the love of my life, Pamela. I was twenty-seven, and a salesman who learned by getting out there, discovering industry needs, and selling the service first-hand.

I learned that dentists have a distinctive profile. They are essentially caring professionals who have insufficient training in the business aspects of dentistry and they rely on office staff for executing administrative tasks and managing the production schedule. Dentists generally position themselves within their communities and their industry as respected professionals. These observations influenced my strategies over the years, as I steadily moved through the ranks of responsibility with the company.

During those formative years of the late 1960s, my father-in-law, Claude Miller, was a major influence on my business education as a mentor. That was a lively time. The nation was in the throws of the Vietnam War, social unrest was in the daily news, science had put men on the moon, and HASCO was moving forward, despite falling stock values.

For me personally, that era was also influenced by twenty years of playing with and coaching Oregon's nationally ranked championship amateur sports. I had graduated from Oregon State University on a full athletic scholarship in track — and a competitive spirit became a part of my management style. I was young and brash, but gradually learned a great deal about the management of personalities through teamwork. I had to discover what each and every one of the players needed to succeed, and then make sure their lessons lasted. I brought this perspective to the workplace, where egos can run just as hot as on the playing field.

By 1969, as general manager, FPC had acquired the first NCR mainframe computer in the Northwest to move our service from paper ledgers to an automated process for the dental industry. Since the company's stock values were falling, Pam and I decided to see where
The current concept of funding and emerged from computer technology that triggered new service possibilities. We might take the company as a private venture under a broader concept that every client's office. That was also the then, and still do, that dentists rely on to First Pacific Corporation. We believed something truly unique. To standardize their staff for long-term profitability and there is ample opportunity to increase production through FPC training, services, and automated tools.

Our leadership team during the 1970s and 1980s added and refined service options and processes and created something truly unique. To standardize our clients' systems and create economies of scale, we developed the first version of our software in the 1970s; by 1985, we had placed microcomputers in every client's office. That was also the year Pam and I became sole stockholders in the corporation.

I have witnessed perhaps a dozen competitors come and go during the past thirty-five years, but FPC remains the original innovator for funding A/R and dental office services. Today, I can confidently say nothing compares in terms of the ongoing value and services we deliver, year after year. We offer a truly comprehensive array of services, including continual upgrades to our software and hardware.

FPC is committed to personal, hands-on service, using the tools of technology for "taking healthy practices to new levels of profitability." The solutions FPC brings to practices integrate growth and A/R management strategies, funding of weekly production, soft-touch patient services, including billing, payment arrangements, account follow-up, and insurance claims processing. Also included are software upgrades, hardware maintenance, hotline technical support, perpetual on-site training, and personal practice management assistance. It's a lot of value for a monthly fee-for-service that amounts to about 5.5% of a practice's annual production.

Throughout the company, we draw on the expertise and skills of every FPC employee in serving our clients. Every practice that joins FPC's system essentially expands the scope of its capacity by approximately two hundred employees. Our service begins when a regional representative visits the office to identify the practice's needs and to help the dentist and staff articulate their vision. For forty years, we have been privileged to learn about the hopes and dreams of every dentist who ever used our services. Such in-depth discussions frequently lead to long-term business relationships that in many cases have lasted more than twenty years! Relationships are the heart of our service; they provide the basis for developing each office's operations and processes throughout the years that follow.

From our front desk to our back office, FPC's service structure assumes that clients prefer to speak with people, rather than automated, voice-driven menus. Placing clients and their patients first is paramount. When an office joins the FPC family, it is assigned a practice development specialist (PDS) who is the primary advisor to the dentist and staff on practice development, training, and technical issues. FPC's staff visit each practice routinely. When specific questions or issues arise, our internal team of client services representatives (CSRs), patient services representatives (PSRs), and support personnel are available Monday through Friday, via our hotline number. The home office technical staff and executive team members serve as advisors.

The fundamental premise of FPC's services is that removing operational barriers and mundane business activities allows staff to concentrate on increasing production, which in-turn significantly influences the long-term profitability of the practice. The main obstacles to production growth are the overwhelming details of routine patient billing, posting payments, and insurance claims processing, etc. We have friendly representatives who are experts with such tasks.

Our PSRs manage approximately $45 million in receivables annually. They process over two-million patient statements, arrange for patient payment plans, and manage past due accounts with follow-up. This department is known for delivering a 98.2% collection rate on submitted production. Our expertise in managing accounts receivable is one of the most highly valued services we deliver to our clients. FPC's insurance representatives and data processors make efficient work of data entry for processing insurance claims and insurance payments. Annually, they help manage our clients' insurance claims load by processing approximately 850,000 paper claims and over 500,000 electronic claims. They also convey insurance address changes, manage insurance changes, and provide continual support for handling insurance claims.
mail, rejections, and refunds, and conduct limited research on behalf of patients and clients. The management of patient billing, data processing, and insurance claims is only the beginning of what we offer clients. The peace of mind that comes from knowing that insurance and monthly patient statements will be processed both timely and accurately is fundamental to supporting office staff in activities that increase production and efficiencies.

FPC was the first corporation in the Northwest to use a NCR mainframe computer and its applications specifically for the dental industry. Our proprietary software for dental practice management, which is MS Windows-based, evolved through pinnacle industry developments over the years. Unlike software that is available off the shelf, our software is based on sound accounting principles and internal reports that support the practice’s efforts to manage information and profitability. Dental practice activity is transferred to our corporate headquarters daily through a Hewlett Packard server, which provides security backup and allows FPC to maximize efficiencies for dentists on a day-to-day basis. Our team of software developers continually designs new features and capacity into the tools that accompany the service. Upgrades and training are always included in our service at no additional cost to the practice.

Our team of hardware technicians customizes every PC system that, as part of our standard service, is installed in our clients’ offices. FPC’s basic hardware is always state-of-the-art at the time of installation. Clients can add optional features for additional, nominal fees. Every client is scheduled for periodic hardware upgrades, which are included as part of the service at no additional cost to the practice.

Our service provides fundamental tools, information, and training to dental office staff who strive for accountability in A/R management. Dentists who have efficient staff often experience even higher levels in staff professionalism after we have worked with them. Staffs often discover that our service provides accountability and efficiency in the interest of higher productivity. A major byproduct is that we can also help offices identify practice inefficiencies and suggest development plans to build essential skills for productivity. Our clients find that they can grow their practices without increasing their staffing.

FPC prides itself on supporting the dentist-patient relationship and essentially removes the barriers to practice cash flow and patient treatment plan acceptance. Consistent cash flow historically can be the Achilles heel of dental offices because patients want extended payment plans and insurance carriers often pay slowly. Each week, we fund the dentist on current weekly production. Cash flow . . . solved!

Administrative details that eat up the day can hamper patient follow-up and scheduling. Discussions about high quality treatment plans, which are critical to increasing production, can be complex and reveal that such investments require financial consideration. We help our clients provide payment options by working with patients and their dentists to design mutually acceptable financial arrangements. The dentist never loses control of the practice’s fiscal activities and patients receive the treatment they require. Treatment plan acceptance . . . solved.

Today, we are nearing the end of construction on a new, 45,000-square-foot corporate headquarters in Salem, Oregon. I continue to develop a team of experienced executive management professionals, some of whom have been with the company for thirty-plus years. Others bring to the company insights about today’s super-competitive business practices and provide unparalleled customer service expertise. We have recently adopted a new logo that conveys a contemporary look and feel which better reflects our forward-looking philosophy. FPC continually refines its service and appreciates how technology influences dentistry today. We are in the process of developing a generational leap in our A/R management software that anticipates dental practice innovations.

We know that today’s dental students are FPC’s clients of tomorrow, and we look forward to helping their established practices that grow into profitable success stories. Our executive team is excited and confident about the future of the company.
Partners with Dentistry

Making Panographic Equipment Available in the Office

Eric Stetzel

Abstract
Panoramic Corporation began as a business leasing panographic radiographic equipment to dentists in the Fort Wayne, Indiana, area and has become the largest manufacturer of such equipment in the world. While ensuring a quality product, Panoramic has built its success on making this high-end technology available to dentists with minimal risk and a high level of maintenance. Direct marketing and lease programs have been keys to making panographic capabilities available to many dentists.

Panoramic Corporation really started with a small dental distribution company called Twenty First Century Corp. which I founded after my graduation from Hillsdale College in 1980. My company only had five, very young employees, including myself, filling the positions of installers/service-men, sales, and clerical personnel. Of course there were no "departments" and we all filled in wherever needed. Three of us remain Panoramic employees. We marketed and repaired dental equipment and supplies in the Fort Wayne, Indiana, area where I was raised.

My father is a practicing dentist in Fort Wayne and my brother, who now practices with him, was at that time a dental student at Indiana University. I'm sure my involvement with the dental profession was no surprise to my family.

Rather quickly I discovered that my company did quite well selling the most expensive item that I carried; panoramic x-ray machines. At that time most American dealers sold foreign-made panoramic machines, and I was no exception. I handled a well known line of Japanese machines, and despite limiting sales to within one hundred and fifty miles of Fort Wayne, Twenty First Century soon became the manufacturer's largest seller of panoramic machines in the United States.

I noted that while the great majority of dentists appreciated the value of a panoramic x-ray machine in their practices, most felt that their individual use didn't justify the outlay of such a capital expenditure. In an effort to address that concern I developed a lease program that charged rental on a "per radiograph" basis rather than a fixed monthly fee. Either my company or the dentist were permitted to cancel the lease, at any time and for any reason, upon five days notice. This rental program essentially gave dental offices a risk-free opportunity to obtain an expensive and important tool for their practices with no investment, because my dealership paid for shipping, installation, and all maintenance.

My company retained title to the leased machines, which tied up a lot of capital for a start-up venture, but I knew that I was dealing with a solid and dependable customer base, eager to improve patient care. The leasing program provided dentists with a financially sound opportunity to do that without risk. We also provided free film, and the customer was given a purchase option at any time during the lease, with a significant portion of the lease payments applicable to the purchase price. Not surprisingly, the leasing program was an instant hit, and as dentists became accustomed to the ready availability of panoramic machines in their practices, overall usage and purchases went up.

Unfortunately, because my machines were manufactured in Japan, the surge in the value of the yen during the eighties put a serious squeeze on margins, leading me to consider the possibility of establishing a manufacturing source in this country which could assure me of much more predictable costs. By the mid-eighties I had decided to separate the panoramic x-ray business from Twenty First Century and to become a manufacturer. In 1986 I formed Panoramic Corporation to concentrate on the x-ray business, and Twenty First Century became a separate operation which was eventually acquired by Henry Schein.

Panoramic began a search of local manufacturers who might be interested

Mr. Stetzel is founder of Panoramic Corporation, the world's leading manufacturer of panoramic equipment for dentists. The firm's headquarters are in Ft. Wayne, IN: (219) 489-2291: estetzel@pancorp.com.
in using excess manufacturing capacity, and we soon found a willing supplier with a large engineering staff and skilled workforce. Suitable contract arrangements were made, and the first panoramic x-ray machines, designated the PC-1000, were delivered to Panoramic Corporation in 1988. Our marketing approach rapidly became national in scope, and by the early nineties we had become the largest producer of panoramic x-ray machines in the United States. By marketing directly to dentists through telephone and mail — a process refined during my Twenty First Century days — Panoramic was able to offer the PC-1000 at a significantly lower price than the competition, and its unique leasing program enabled dentists to take a very long look at the product before committing to purchase.

From the beginning it was clear that our initial machine quality had to be equal to or superior to the best of our competitors, and we pursued that goal diligently. Panoramic regularly secures third-party verification of specifications to ensure that the desired quality is consistently maintained. Although the cosmetics have remained basically the same, we gave the PC-1000 a major redesign in the early nineties and upgrades are routinely added. Compatible, retrofitable cephalometric attachments have been available to our customers for over a decade. Naturally, initial happiness with a product can’t last without the availability of adequate service. To maintain our products, Panoramic provides a nationwide network of service technicians who are supplemented and overseen by our factory service department. Over the years we have found that about 80% of service questions can be resolved immediately over the phone by our factory team.

In the late eighties, Panoramic built a new 10,000 square foot warehouse, and its size was subsequently doubled. In 1993, as the business continued to grow, we built our own factory adjacent to our offices and warehouse facilities, assuming direct control over the design and production of machines. Panoramic’s growth also enabled us to become more involved in the non-commercial side of the industry. In 1994 we received the Humanitarian Assistance Award from the International College of Dentists, and we continue to maintain an active role in such charitable activities.

The success of our direct sales approach has not only ensured the growth and prosperity of Panoramic, it has, I believe, been the major factor in materially reduced the price of all panoramic lines of competing companies throughout the industry. Despite ever present inflation, the average price of a panoramic X-ray machine when Panoramic began fifteen years ago ranged between $12,000 and $14,000, while the average price today is around $9,000. We now market direct to the dentists of Japan, and we have also extended our business throughout South and Central America, Europe, and Asia, underselling the competition even after shipping our products halfway around the world.

In 1998, after being the top producer of panoramic machines in the United States for seven consecutive years, I sold Panoramic Corporation to Young Innovations, a publicly traded company in St. Louis with a long and successful history in the dental supply business. In October, 2001 Young was named by Forbes Magazine as one of the nation’s top two hundred small companies for the third year in a row. Even though Panoramic’s growth has been excellent (in 1991 we were ranked #46 among the five hundred fastest growing small companies in the country by Inc Magazine), I felt that broader markets needed to be reached to sustain such growth. Therefore my decision to sell was primarily based on a desire to grow into other areas of the business. Although Panoramic was proficient in direct marketing, I believed that we needed a deeper understanding of other product lines and alternative forms of marketing. In order to expand into additional areas, I felt that it was necessary for Panoramic to have people available with wide-ranging skills and experience, and for those reasons Young Innovations proved to be the ideal purchaser. I remain president of Panoramic with offices at our newly completed administration building at Fort Wayne, where I also currently manage other Young divisions.

I feel that Panoramic has prospered because we made an important product available to dentists without requiring them to expend the large amount of money our competitors required. This has been particularly important to the young men and women beginning their careers, although I have also noted that older dentists, like my dad, also enjoy saving money when they are pleased with the quality of the product and the available support and service.

This is a great time to be in the dental industry. The relationship between patient and dentist has not yet been fragmented by the excessive intrusion of insurance and governmental elements, which, as we have seen, often has had a negative effect on many aspects of the medical industry. Dentists’ interaction with patients, coupled with the natural and competitive desire to improve their services, give a splendid opportunity to those companies willing to provide high quality, reasonably priced dental products. 

**Dentists’ interaction with patients, coupled with the natural and competitive desire to improve their services, give a splendid opportunity to those companies willing to provide high quality, reasonably priced dental products.**
Les Schwab Tire Centers Leads the Way in Dental Insurance

Dawn Walker

Abstract
A family-owned retail tire company has a successful history with direct reimbursement for dental and other health care benefits. Although there is a co-pay and some elective services are not covered, employees are not asked to fund insurance premiums and freedom of choice with regard to provider is ensured. This approach is grounded in the family orientation of the company.

It's true that we have a great dental plan, but much of the success of our plan is owed to the partnership and mutual accountability that exist between the Les Schwab family and its employees. To understand why our dental benefits work as well as they do, you must know the employee/company relationship that is prevalent in every area of our company.

The relationship between company and employee is no different than the relationship that exists between our employees and the customer. In other words, our company heritage is based on a "customer service" model (which today is nothing more than a coined phrase in most retail industries) as an essential characteristic of the Les Schwab company. Here at Les Schwab, this type of customer service is referred to as "sudden service."

Sudden service would be difficult to accomplish if there were restrictions, pre-approval processes, or limitations placed on the type of health care treatment or service that was covered, and if the provider was pre-selected for employees. Customer service is one of the reasons there is much flexibility and very few restrictions placed on our covered employees when they select their medical and dental providers. The employees (along with their dentists) determine the type of treatment they will receive.

Partnership is also the reason that the monthly contribution made for our employees to have coverage is fully funded by the company. In other words, our employees do not pay a monthly premium for medical, dental, vision, or life coverage. Our employees do not have separate annual deductibles for their covered family members (spouses and children). Once you understand these elements, then the success of our dental plan makes sense. Without a strong employee/company relationship, without accountability, without mutual trust, without flexibility, even the best plan will have some drawbacks or undesirable financial consequences to both the company and its employees.

Our dental coverage is not considered as a separate plan from the medical plan. There are not separate deductibles to be met for our covered employees change in 2002 to 80/20 no matter what the length of service is.

For example, an employee who has been in full-time service for six months to two years has up to $1,000 of annual billable dental expenses that can be submitted for payment. For an employee with two years to five years of service, the amount increases to an annual maximum of $1,250. After five years of full-time service, that amount increases to an annual maximum of $1,500.

The plan does not limit or restrict the number of crowns, inlays, root canal work, treatment for pain or disease, x-rays, shots, antibiotics, or cleanings as some plans do. And, unlike many plans, the co-share does not change based on the dental work performed. There are no pre-authorization procedures. An employee can go to any licensed dentist

Ms. Walker is Employee Services Manager for Les Schwab Tire Centers, Prineville, OR: (541) 447-4136; dawn.e.walker@lesschwab.com.
or hygienist he or she chooses. The plan allows the dental decisions to be made by the dentist and the covered employee or dependent. This type of arrangement allows decisions to be made based on needed treatment and not around the dental plan.

There are a few restrictions and non-allowable items. Restrictions include adult orthodontic expenses as a non-allowable item. Child orthodontic expenses are covered as long as they are within the annual dental amounts. But unlike many plans, there is not a lifetime maximum on the child orthodontic expenses. This allows the orthodontist to bill each year of treatment. Cosmetic dentistry is a non-allowable item. Missed appointment charges are non-allowable items. The non-allowable expenses are reasonable exemptions when you consider the freedom of the plan and the few restrictions the plan does have.

The employees of Les Schwab have never had to pay a premium for coverage in the history of the company. The premiums are fully funded by the Les Schwab company. The only out-of-pocket expenses to the employee are the co-share percent or election of non-covered options. This is something the Les Schwab family believes in strongly. It is an essential part of the total compensation of the employee and it is one of the many reasons why the company is able to attract and retain loyal hard working employees (along with fully funded bonuses, holiday pay, vacation pay, short- and long-term sick pay, dividend bonus, life insurance at a minimum of $60,000 per employee, and a 15% contribution of each employee’s annual pay fully funded by the company into a retirement trust). While many companies are cutting back on the dental benefits coverage for their eligible employees, the Les Schwab dental coverage has not been reduced over the years, but maintained to continue to give our employees the coverage they need.

Why does this plan work when many of the benefits are considered generous as compared to most plans out in the industry? It works because each employee is a partner in the company. As expenses increase, there is a shared sense of responsibility for controlling expenses.

There are no pre-authorization procedures. An employee can go to any licensed dentist or hygienist he or she chooses.
Abstract
The authors discuss ways that dentistry engages silently and sometimes unknowingly in practice patterns that adversely affect public access to dental care. The concept of acceptance is explained and contrasted with treatment and with access to care. The concept of Universal Patient Acceptance (UPA) is introduced, with a focus on how it underlies and precedes access, creating a pathway so that truer universal access to dental care can be realized. The authors argue that a commitment to Universal Patient Acceptance shows promise as an important starting point in the dental profession's concern to address society's unmet oral health needs.

There is a prior, often unnoticed step that occurs before a person becomes a dental patient. Every prospective patient must first express his or her need for dental care, and the dentist responds by describing how the patient might access that care. If a dentist refuses to participate in the discussion that makes up this first step, then some people who need dental care might be prevented from obtaining it. But if a dentist accepts the patient as someone to talk with at the outset, then that person has a better chance to learn about how to access care, whether it is in that dentist's own office or by referral to another practitioner or organization.

This first and most basic encounter between a dentist and a prospective patient is what we call acceptance. This first step of acceptance often goes unnoticed because it is so inconspicuously a part of the larger dental care process, namely diagnosis and treatment.

Dr. Patthoff is a private practitioner in Martinsburg, WV and a Past President of PEDNET, the Professional Ethics in Dentistry Network. Dr. Patthoff can be contacted at dporthoff@intrepid.net.

Dr. Corsino is Adjunct Associate Professor of Psychology at Virginia Technology University.
Issues in Dental Ethics

However, acceptance of someone does not necessarily mean that the dentist will personally provide the care. It means only that the dentist affirms the person's desire for dental care and engages in whatever discussion and assistance is necessary to connect that person to the dental care they need. The dentist helps the patient get access to care somewhere, but not necessarily in that dentist's office.

We contend that dentistry engages silently and sometimes unknowingly in practice patterns that adversely affect patients, society, and the profession by failing to offer every patient what we have called acceptance. These patterns can be mitigated when the profession of dentistry better understands and practices a process that will here be called Universal Patient Acceptance (UPA). This essay will describe acceptance more fully and distinguish it from the related concepts of access and treatment. We propose that changes in how acceptance is practiced show promise as a starting point to address some of society's unmet oral health needs. Access to dental care could improve if Universal Patient Acceptance (UPA) were to become the common practice of dentists. We argue that the goal of improved access is promoted if UPA becomes a part of the ADA Code of Ethics and of daily dental practice.

Looking Behind the Access Issue

A recent report describes the extinction of pediatric dentists in California willing to accept DentiCal patients (Berthold, 2001). As a result, certain children in that area no longer have access to dental care. Other data confirm that an increasing number of people nationwide are unable to get the oral health services they need (Evans & Kleinman, 2000; Luz, 2001). Further review suggests that the exclusion of patients and denial of care is accomplished in many ways.

Practice management programs purchased by practitioners readily encourage and teach providers how to pre-select and dispose of patients (Morgan, 2000). Newly developed computer software permits dentists to categorize every aspect of patients with regard to dental needs, personality, and ability to pay, thus making the selection and disposal of patients more efficient (Dentrix, 2000). Some dentists operate only on a cash fee-for-service basis or refuse to participate in emergency room call coverage. Both these practices restrict access to dental care for those with no ability to pay, and even for some who are insured.

Actions such as these weaken the commitment to communities that dentists are entrusted to serve. They also occur at the expense of other dentists who must then manage and treat a disproportionate number of patients rejected by these other practices. This creates tension among dentists, as well as between dentists and their communities. Dr. Robert M. Anderton, American Dental Association Immediate Past President, is mindful of the many ethical obligations related to access and that they exist "not only to the public we serve, but also to each other as professionals" (Berthold, 2001).

The American Dental Association Principles of Ethics and Code of Professional Conduct (ADA Code) holds that dentists are committed to "improve access to care for all," suggesting that dentistry has a covenant with society to make access to its expertise available (American Dental Association, 1999b). If so, then there exists a global professional responsibility to address and correct these inequities with regard to access. That responsibility appears to be in conflict with many practice management strategies, computer techniques, cash-based practices, and other methods by which hometown dental providers exclude patients.

But to improve access, we must first understand acceptance and how acceptance is the less visible, undervalued first step in every dentist-patient relationship. We argue that dentists can engage in Universal Patient Acceptance with little or no reduction in their ability to specialize, control the availability of their services, and seek profit. Universal Patient Acceptance (UPA) underlies and precedes access, and helps create a pathway such that truer universal access to dental care can be promoted and realized.

Acceptance Further Defined

Acceptance is the first of four steps (acceptance, diagnosis, treatment, and payment) involved in the process of becoming and being a patient. That journey from person to patient begins when a person asks for help. A dialogue must then take place between the dentist and the person to determine his or her need for care and the possible avenues by which that care can be accessed by the patient. Acceptance happens when dentists accept the responsibility to talk with persons and engage them in such dialogue. Making this dialogue available is an ethical imperative of the profession.

Acceptance does not imply that dentists must cease to specialize or manage their availability. Also, the act of acceptance does not mean an obligation to provide diagnostic, treatment, and financing services to all persons and potential patients. Acceptance embodies the responsibility of dentists to interact with potential patients to discuss their situation and if necessary, to help assure some mechanism by which they can access care. This notion is described in and justified by the history, traditions, and ethics of dentistry (American College of Dentists, 2000; Ozar and Sokol, 1994).
We perceive three basic styles of acceptance: random, selective, and universal.

Random acceptance is practiced when dental providers do not specifically plan their actions to determine which persons will be seen for discussion and perhaps treated. Office location, hours of operation, and languages spoken are types of actions that contribute to patterns of random patient acceptance, and thus the unintentional exclusion of patients.

Selective acceptance is an intentional process that specifically seeks to limit who can be seen and treated. Specialization selects patients based on treatment procedures. Managed care agencies select patients based on employer or insurance groupings. Providers who refuse health welfare recipients select patients based on finances and ability to pay. Such acts result in the selective acceptance of some patients and the exclusion of others.

Universal acceptance is the acceptance of every perspective patient who contacts the dentists. Universal acceptance intends to remove barriers that accidentally or intentionally keep people from being accepted for a dialogue with a dental professional. It allows each person to learn if they should become a patient, the types of care needed, and options for how that care is to be acquired. We review the practical application of Universal Patient Acceptance (UPA) and the specifics of how access to care can be better assured if UPA were to become the common practice of the profession and every dentist.

**Dentistry’s Obligation to Universal Acceptance**

The practice of random or selective acceptance means that some people who need dental care don’t receive it. That reality seems to tarnish our claim to deal ethically with patients and society, and contradicts the mandate of “improving access to care for all.” Models of acceptance other than universal seem ethically problematic.

Dentistry proclaims itself to have special knowledge and skills necessary for the well-being of society. Society grants the privilege of self-regulation to dentistry knowing it will receive the benefits of that special expertise from the profession (American College of Dentists, 2000; Ozar & Sokol, 1994). Since only dental professionals can provide this expertise, it is arguably unjust for the profession to deny anyone the opportunity to talk about that expertise, or how, where, when, and under what circumstances it can be obtained.

We believe that dentistry maintains an ethical covenant with society to make this dialogue available to every patient regardless of how the access issues are resolved for that patient. Acceptance, then, is a professional act and expression of this covenant. It means that members of the profession as individuals and collectively, will do their part to increase and ensure access to care by accepting to talk about it with all those who ask for help.

By contrast, as indicated above, access means people with dental needs are actually cared for as patients. We propose that, accountability for acceptance rests solely with the profession, but that the responsibility for access lies with the profession and society. This means that the public and not only the dental profession must promote the fair distribution of dental services and ensure that all barriers to access are removed. That often requires more than just making a dentist available. It might also include such things as language accommodation, transportation for the disabled and elderly, or oral health care funding for those who are impoverished.

The practice that we are calling Universal Patient Acceptance (UPA) is not the same as the idea of universal access that can include the practices of universal treatment or universal coverage. Universal treatment would mean that all patients would receive the full spectrum of diagnostic assistance and treatment that they might need. Universal access would be a system that pays for all this care through some source. Universal access would mean that every patient would be able to obtain such diagnoses and treatment and it would be covered in some way. Clearly, UPA is none of these things. Access and acceptance differ in terms of what each aim to do and who is accountable to ensure they are achieved. Access is necessarily a societal concern. Acceptance is a matter of professional responsibilities. It means dentists have a responsibility to pay attention to each person and to help him or her get access to appropriate dental care.

**The Practical Application of UPA**

With UPA, the responsibility for establishing a relationship with the person, discussing, facilitating, and assuring their dental care is placed on the profession and its individual members. That responsibility does not necessarily include diagnosis, treatment, and payment for these matters of access. It does mean the accepting dentist takes responsibility to get the person into the professional dental network, ensuring that the patient is not compelled to negotiate any further obstacles to care. Statements such as “we don’t extract teeth,” “we don’t accept medical cards,” or “our emergency slots are already full” would be inconsistent with UPA. Such replies are exclusionary and deflect the responsibility of each individual dentist to properly talk with, coordinate, treat, and refer the person for care.

To be successful, UPA would need to be implemented and consistently...
Issues in Dental Ethics

practiced by the entire profession. It implies that dentists in each community will need to work together to ensure that opportunities for adequate dental care exist within that community. To accomplish a change of such magnitude might seem overly ambitious. However, we already know that major paradigm shifts can and do occur in dentistry. That was seen when the profession successfully adopted and practiced Universal Patient Precautions in response to the AIDS crisis. Such a paradigm shift in attitude and behavior resulted in improved dental care delivery (American Dental Association, 1999a, 2001).

In an analogous way, we hope Universal Patient Acceptance results in a paradigm shift, improves access to dental care, and enhances the relationship among dentists and between dentistry and society. However, even if a person is accepted to discuss and coordinate their dental needs, it means nothing unless there is a real potential for them to actually be treated somewhere by a dentist. Actual access to treatment is a multidimensional event that is dependent on acceptance. There are existing efforts within dentistry to consider specific methods to promote better patient access to oral health care. The ADA Council on Access, Prevention and Interprofessional Relations coordinates many of these.

Consistent with the findings and work of that council, we admit that a seamless system of access can be created only with some reform of existing payment practices, public law, and codes of professional ethics. A thorough discussion of such changes is beyond the scope of this report. Nevertheless, certain reforms might help motivate the profession to embrace Universal Patient Acceptance and to practice it as an essential first step toward improving access to oral health care.

Financial matters certainly affect rates of acceptance and access to care. The process of getting treatment to the underserved is usually more easily accomplished when dentists are sensibly compensated for their work. That is why the ADA has recommended certain reforms in state and federal health welfare programs (Berthold, 2001). In tandem with that, there may be ways to remove the fiscal incentives for dentists to select and dump patients, and avoid community emergency room coverage. That might include a redistribution of profits, to compensate those dentists willing to service patients excluded from care by such practices.

The practice of Universal Patient Acceptance could also change how charity cases are managed and resolved because Universal Patient Acceptance results in a point of access for their oral health care. Specifically, if a dentist lacks options for charity, there would exist the need for that dentist to collaborate with colleagues and other community agencies to develop creative ways of providing for charity cases. Replies from dentists such as "I don't do charity" or "there are no places for that, and someone should do something about it," are inconsistent with Universal Patient Acceptance.

Changes in law would probably be necessary to realize acceptance as a universal practice. Those would probably be focused on malpractice issues and tort reform. To understand these, it must first be acknowledged that the practice of Universal Patient Acceptance would directly impact the process of risk management. Society and dentistry have claimed that improved access is a mutual goal and we propose that the practice of Universal Patient Acceptance is the first step in this process. If that is true, then certain compromises with regard to risk management must be made between society and dentistry, specifically with regard to the management of "high-risk" patients.

High-risk patients are those who, by virtue of their medical complexity, culture, education, support system, or other factors, are less able to tolerate and properly recover from dental procedures. It can be inferred that high-risk patients consume more resources and generate claims of malpractice with greater frequency (Vaselaney, 1997). In a Universal Patient Acceptance model, "high-risk" patients are no longer excluded from professional attention within the oral health care community and they would be, therefore, effectively assisted in finding access to needed care.

To make it possible for dentists to adopt Universal Patient Acceptance and the associated greater exposure to responsibility for high-risk patients, dentists must be afforded immunities from certain types of legal liabilities. Existing law employs legal liability reasoning to establish acceptable standards of professional dental care. For Universal Patient Acceptance and then ultimately fuller access to care to succeed, the standards would need instead to be based on professional dental reasoning.

If society wishes its oral health problems to be fully managed with the standard of professional dental reasoning, then that standard — not legal reasoning — will need to be applied in those cases of alleged bad dental care. An exception is the presence of criminal assault. At some point, legal reasoning and malpractice suits must be considered to be unreasonable solutions to problems. More effective resolution could be achieved by strengthening professional codes of ethics and the sanctions employed by those codes. An example is when state dental licensing boards that are already branches of the judicial system, reference the role of dental professional codes, and mandate that all potential malpractice cases first go through mediation or peer review.

The theme of acceptance appears to be managed in a problematic fashion within the existing ADA Code. The ADA Code affirms the appropriateness
of patient selection, the need for it, and the dentist's right to do it. But this section must be taken as referring to diagnosis and treatment, not to acceptance. For example, some providers lack the skills, interest, and expertise to accomplish certain procedures. That is as it should be. But the ADA Code does not comment clearly enough on this prior step of acceptance, except indirectly in affirming dentist's obligation to refer a patient when the patient's needs exceed the dentist's competence. In no way does UPA imply or promote restrictions on specialization. Rather, the responsibility and process of acceptance is accomplished through coordinated referral and assurance of care, not by the exclusion and dismissal of patients. The ADA Code therefore needs to be clearer in its reference to these points.

Possible additions or revisions to the ADA Code have been discussed recently that might improve the codes discussion of dental access (Berthold, 2001). But a full examination of the ADA Code on these matters also requires a discussion of acceptance and how it is ethically managed. The Code's sections on such principles as justice, beneficence, and veracity would all be involved in this discussion.

It will not be possible for dentistry by itself to successfully reform the larger legal and payment factors that impact access to care. That will require broad support from many parts of society and multidisciplinary expertise as well. However, the profession can take the first steps by integrating Universal Patient Acceptance into its ethics code and practice patterns. In addition, individual practitioners can incorporate its concepts into their patterns of practice. The result could be one of dentistry's distinct, beginning contributions to the larger problem of access to care.

Conclusion

Dentistry engages in exclusionary practices that create problems for patients, the profession, and society. People suffer human injustices when they are denied access to dental care. Tension among dentists also arises when some dentists must disproportionately care for patients rejected by other practices. Finally, dentistry's covenant with society erodes when dentistry fails to fix problems with access to the dental care that it promises to society. Universal Patient Acceptance is a method of dental practice that precedes and promotes improved access to care.

Acceptance, diagnosis, treatment, and payment are the four steps that occur in the process of a person becoming a patient. Only acceptance, and changes in how acceptance is practiced, has significant potential as an initial response to some of society's unmet dental needs. UPA, while not the same as patient access or universal treatment or universal coverage, yet is the foundation upon which the practical achievement of these other concepts most likely depends.

We see an important similarity between Universal Patient Acceptance and Universal Patient Precautions since both require dentistry to shift its modus operandi. We believe that UPA is no less important and no less achievable than Universal Patient Precautions, each in its own way having the potential to greatly improve dental practice. When done correctly, UPA can also enhance relationships among dentists, and between dentistry and society.

If UPA were to be universally and uniformly practiced by the profession, dentists could broadly accept prospective patients to discuss and coordinate their dental concerns in ways that could put the needs of patients first. UPA would also allow for specialized, controlled, and profitable practices to continue (Jett, 2000). Universal acceptance can be compatible with profit and it is likely to enhance the public's view of dentistry in general, and very possibly dentistry's view of itself as well.

We admit that changes in compensation patterns, public law, and professional ethics codes would be required to accomplish full acceptance and access to dental care for patients. However, dentistry can start the process by employing and integrating Universal Patient Acceptance into its ethics code and practice patterns. This can be one of dentistry's distinct contributions to the larger problem of access to care. Our goal is to move the notion of acceptance to a position of greater prominence and visibility, and create a pathway such that truer universal access to dental care can be promoted and realized.

References


Leadership

Red Beads and Funnels

David W. Chambers, EdM, MBA, PhD, FACD

Abstract

Dentists, like most managers, believe that unanticipated team results are evidence of poor performance on the part of employees. While this can be the case, it is much more likely that most variation is inherent in the system and is probably not under the control of staff. The dentist, as the manager, has full control and full responsibility for guaranteeing that the office runs effectively and for improving its operation.

Dr. Precise has been frustrated with his assistants. He has a high-end reconstructive practice and the quality of impressions matters. His assistants prepare the material, but Dr. Precise takes his own impressions. What bothers him is the consistency of the material — sometimes a bit too viscous, sometimes too stiff. Dr. Precise is a pro, so he knows how to make adjustments at chairside. He prides himself on never allowing these problems to interfere with the outcome; the few “failures” have been the result of unforeseen patient complications and other matters out of his control. It is just annoying to have to put up with any sloppiness on his staff’s part. Usually Dr. Precise lets his assistant know about the problem, in a kind way of course. “Jane, this one is a bit runny. I would suggest you cut back about three drops on the water next time.” The fault is obviously not in the material, since problems occur with all products. Conversations with his colleagues confirm his suspicions that staff in general are “not very bright” and “don’t seem to have high standards.” Dr. Precise can confirm this because he has let a few assistants go because they “didn’t get it.”

Dr. Precise is not a perfectionist, but he is certain that his patients deserve the highest standard of care possible. He is equally certain that staff should be expected to use his feedback to improve their performance and that they should be terminated if they can’t consistently come up to standard. Dr. Precise is a model of professionalism in these regards. He is also almost certainly dead wrong.

Understanding Variance

America is preoccupied with averages. Dentists got into dental school with high GPAs and DATs. They earned a license with passing averages on National Boards and initial licensure examinations. Their retirement hangs on the Dow Jones. But here’s the irony — dental care is not a matter of averages. Quality in the dental office is determined on a case by case basis. Regardless of what insurance companies or CE gurus might say, substandard care on one patient cannot be justified by excellent results in general. Must dentists understand this intuitively, and that is why they are reserved in accepting the claims of both researchers and manufacturers that are based on averages.

Averages are theoretical constructs. I have yet to meet the “average dentist.” Dentists like to know the average as a general reference point, but they usually want to know more than that. If your stock broker explains that your portfolio dropped by 10%, but the average of all the portfolios he was managing actually rose by 2%, this would be the cause for some hard questions, not an acceptable explanation. The average just helps us set expectations.

What do practical people want besides averages? Having watched carefully in many settings, I have come to the conclusion that practitioners (anyone who works on individual cases in a semi-customized setting and continually strives for improvement in function and esthetics) are guided by two landmarks. Practitioners seem to have a reasonably clear image of the level of quality they are aiming to achieve. Lying aside the hype about “nothing is ever good enough,” there is some standard that is the target. This is called a design specification by engineers. Design specifications differ across dental offices based on patient expectations, economic considerations, extent of training, the personal philosophy of practitioners, and many other factors. Dentists can “feel” design specifications when they walk into a colleague’s office. The other landmark is called, again by engineers, a tolerance. Tolerance is the level of quality that one is willing to accept. Obviously the public defines tolerance in dentistry as a minimal standard of care. Dentists who are professional set per-
The question on which quality achieved in a dental office hangs is how far above tolerance should the design specification be set.

Leadership

Dr. W. Edwards Deming in the 1960s and first recognized by Al Shewhart in the 1930s. When Dr. Deming told the captains of industry in America that managers, not employees, were responsible for poor process outcomes and that tweaking processes generally causes more harm than good, he was received with the same incredulity that most readers probably felt at the top of this article when I said Dr. Precise was dead wrong to play with the dosages in impression mixes and to let his staff go because they could not meet his design specifications. In Japan, the highest national prize (something like the Nobel Prize) is called the Deming Prize, and Deming is generally given credit for the miraculous post World War economic boom in Japan (but he cannot be held accountable for the dubious banking practices that have the country in such a slump today).

Red Beads

Deming had a hard time convincing folks that processes contain inherent variation. Although we are willing to admit this possibility in nonpersonal settings such as annual rainfall, the spread on sporting events, or even the stock market, when our fingerprints are on the process, we hedge. Our reservations are not symmetrical. Psychologists call this the Fundamental Attribution Principle, and it works something like this. I will take credit for outcomes of processes I am involved with if they are successes, otherwise, it is random error. I will blame others if they were involved with unwanted outcomes, otherwise I will hold my peace. Review the case at the beginning and note that Dr. Precise took pride in being able to work with any mix his assistants prepared, except for those rare cases that were beyond his control, while he was willing to terminate an assistant who could not get it right.

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In order to demonstrate his principle, Deming developed a "game" known as the Red Bead Demonstration. It is famous in quality circles and he probably used the demonstration thousands of times with the top executives in this country. It goes something like this...

It is both shameful and ignorant to attribute outcomes to employees or oneself that belong to the process itself.

The equipment required consists of a paddle or small shovel with fifty small symmetrical depressions in it and a large bowl containing hundreds of beads, 80% of which are white and 20% red. The participants in the demonstration are managers and some convenient number such as ten to twenty works well.

The stage for the demonstration is set by a leader, such as Deming himself. He characterizes the situation as one where a firm selects and ships white beads. Each day six sets of fifty beads are selected and shipped. The firm is paid only for white beads. The company breaks even at an average of forty white beads per order. Members of the group are selected to play various roles. Six willing workers are chosen, each to draw one set of beads per day by sticking the paddle into the large bowl to fill each of the depressions in the paddle. One or more auditors are chosen to count the number of white beads per sample and record the results. A strategic planning team might be selected to set production goals. An HR group and an overall management team will also be chosen. One of Deming's favorites was team charges with writing slogans and speeches to motivate the willing workers. Sometimes there is a director of training who demonstrates how to draw samples.

On the first day of productivity, six samples are drawn and the number of white beads in each sample is counted and the average across the six samples is calculated. Attention is drawn to the fact that some of the willing workers are both effective and motivated based on the fact that they have drawn more than forty white beads. Those workers whose samples were deficient (fewer than forty white beads) are counseled to "try harder." The process is repeated several more times. The criticism of those workers with defective samples is intensified. Those who have repeated defective samples are treated especially harshly. Those who "slack off" from their previously acceptable performance are singled out. There is even a bonus paid on the third or fourth "day" for those who seem to be getting the point. The trainer is let go (just as any practice management consultant who cannot demonstrate sustained improvement in a situation such as this should be). The slogan committee is disbanded. Management is sweating because there is only enough revenue to pay the employees and nothing left over for profit. Finally, in a humanistic gesture on the part of management, it is decided to run on half shift and to retain only the effective willing workers. On the sixth day, the top producers are retained and all others are dismissed. The process continues several more days.

The red bead demonstration doesn't always produce the same exact distribution of beads, but in the long run it will look something very much like this. The average number of white beads will be forty (exactly on the break even point) and that number will fall between 37.7 and 42.3 99.9% of the time. It will neither improve or get worse in any systematic fashion. The typical willing worker will draw samples with forty white beads. Ninety-nine point nine percent of the time individual willing workers will draw samples with between 34.4 and 45.6 white beads. Half of the time, their samples will be below the break-even point, but there will be no pattern to these defects.

How do we know these facts? Deming tells us that we must first study the nature of the process itself, entirely independent of the efforts and skills of the workers and the effort and aspirations of management. The expected results reported above can be calculated precisely from the known characteristics of the process itself. Any deviation from the variation inherent in the system could be attributed to employees, management, or breakdown in the process. But there will be no deviation. I have run the demonstration often enough myself to confirm the obvious insight that everything in this demonstration depends on the design of the process. All the flapping of management and effort of the employees (even those who recognized the true nature of the situation still strive to beat the odds) amounts to complete waste at best and will damage self-worth in most cases.

"But wait," I can hear you saying. "This is a completely artificial situation. Certainly realistic processes are subject to influence by sloppy workers, inspiring leadership, and other forces beyond the random." That is true. But it is equally true that the manager doesn't know which of these human factors are operational or the extent of their effect until he or she first understands the variance inherent in the system. It is both shameful and ignorant to attribute outcomes to employees or oneself that belong to the process itself. And now that this fact is known, there is no excuse for not trying to study the process. Quality engineers use the simple rule that human factors and process breakdown should be investigated if a single outcome falls outside three standard deviations on either side of the average or if seven successive outcomes fall above or seven successive outcomes fall below the mean or if seven successive outcomes all get better or worse than the previous ones. The rule is that 99.9% of the standard devia-
tion is due to the process. Management should get excited when that is not the case. Management should also get excited when the system is designed to produce an unacceptable number of failures. In the red bead demonstration, half of the samples will be defective. That was a design failure and is entirely the responsibility of management.

In the case of Dr. Precise, he should first determine the variation in the viscosity of the impression mixes. He should satisfy himself that he can work with anything that is three times the standard deviation above or below the mean (the tolerance). This means he should reject one tray out of every 1000. Then he should sample the outcomes of his assistant’s mixes. If a job applicant can’t consistently stay within the limits set by three standard deviations above and below the average, he or she should not be hired. If an existing employee cannot stay within the limits he or she should be retrained, or reassigned, or terminated — in that order. Dr. Precise owns the system, not the employees, only he can change it. Blaming others does not fix the process. In the case of Dr. Precise, he should have been suspicious when each new employee had the same shortcomings.

The Funnel

Tweaking the system is an itch. As is true of itches, tweaking does nothing to correct the problem and usually makes matters worse. We just can’t help ourselves. We are leaders and we have to do something. If we can’t improve the system because we do not yet understand it, at least we can look good managing the symptoms. Dr. Precise tweaked the mix by suggesting adjustments to the impression mix based on the results he was given.

The funnel demonstration was developed by a man named Lloyd Nelson, but was frequently used by Deming. The equipment required is a stand, such as those used in laboratories, with a funnel attached to it so that it would be about eighteen inches above a surface such as a carpet over which is spread a bed sheet. In the middle of the bed sheet there is an x, and the funnel is placed over the x. A marble is released in the funnel and its final resting point on the sheet is marked.

This can be conceptualized as a fixed process (the sightings, the stand and funnel, the carpet, and the marble) with random variation added as a consequence of unknown factors interacting with the characteristics of the process. The randomness of the outcomes of the process can be demonstrated by repeating the process fifty (or some other convenient number of times) and noting the distribution of the marks made on the bed sheet. An example is shown in Figure 1. Ninety-nine point nine percent of the marks will fall within three standard deviations of the x in the middle. If the stand with the funnel on it is raised or the surface under the bed sheet is harder, the circle will be bigger, but 99.9% of the marks will still be within a circle drawn three standard deviations from the center x. We can call this approach “design specification grounded.”

Now let’s tweak the system. Assume that the first marble dropped rests three inches directly south of the x. Move the funnel three inches north of its location on the x. If the next drop is four inches to the right, move the funnel four inches left of the location where the funnel is situated. In the Dr. Precise example, this would be equivalent to the dentist telling the assistant, “This mixture has five too many drops of water; make the next batch with five fewer than this mix.” We get x, shouldn’t we move the funnel two inches south of the target? This could be called “target grounded tweaking.” In the Dr. Precise example, it would be equivalent to the dentist saying, “This mix is about five drops of water to stiff; add five drops to whatever it says on the directions on the box.”

There is yet one more version of tweaking that is quite passive and has the technical name of “random walks.” This rule says move the funnel to a position directly over where the marble rests after each drop. If Dr. Precise had said, “I like the result you have here on this impression, try to match it next time,” he would be creating a random walk.

By now you have already sneaked a peak at the pattern of outcomes from the three tweaking rules and compared them to the design specification rule. Figure 2 shows the effects of tweaking grounded in results. The rule is “compensate for the results by adjusting in the opposite direction.” As the pattern of results in Figure 2 shows, this rule produces a pattern of outcomes that is stable. Approximately 99.9% of the marks will fall within three standard deviations of the x, and the x will remain in the center of the pattern. The problem is that the circle is about one and a half times as large as the circle resulting from the simple rule of making no adjustments. The reason for this is that a new ingredient has been added to the process, the tweaking. But since the tweaking is driven by a random outcome, it can’t improve the process. It only makes it sloppier.

What about the target grounded tweaking in Figure 3? Surely there must be some mistake. The adjustment is being grounded in the original rules of the game. But the typical pattern is one of

If we can’t improve the system because we do not yet understand it, at least we can look good managing the symptoms.
wild and increasing swings, usually in two directions from the target. This is caused by overcompensation. Now the adjustment introduced in response to random fluctuations is systematic and compounding. Target grounded tweaking is especially likely in medicine and very dangerous. It is a chief cause of over-medication. Some of the malpractice observed in faulty orthodontic, occlusal, or TMJ treatment is created in this fashion.

Random walks, shown in Figure 4 have no particular pattern at all. Certainly all control is gone. Before anyone objects that random walks are too silly for anyone to seriously consider using them, they should ask themselves two questions: Have they ever sold stocks because the price was dropping? Have they ever let one of their office members train his or her replacement?

**Moral**

The boss owns the process. The boss is responsible for improving it based on an understanding of what the process is supposed to do (design specification), what is acceptable (tolerance), and the wobble inherent in the system (variance). It is useless and unfair to hold employees accountable for results that belong to the design of the process. Improvements in quality come from redesigning the system not demanding that people work harder with broken equipment.

This is one of many popularizations of the work of W. Edwards Deming, with "official" introduction. The central message is that management is in charge. It can improve quality by taking a long view of constant improvement of the processes that create goods and services. There are nice descriptions of the red bead and funnel demonstrations. Extensive discussions of the folly of trying to fix problems by blaming everyone or changing everything else besides what matters — the process. The book is light on the statistical foundations and heavy on the politics of management's misuse of workers (a Deming view) and the dangers of competition (Aguayo's own view). Aguayo is a banker and consultant who was inspired by taking a course Deming taught on a regular basis at New York University. Most trade books use a combination of clear statements of major points and examples to develop these ideas. Aguayo is long on examples and explicit statements of theory are hard to find.


Deming's attempt to make his thinking accessible to a larger audience. Somewhat more organized than *Out of the Crisis* and shorter, this treatment still fails to systematically present a coherent picture of quality thinking. He now calls it "The Deming System of Profound Knowledge" — said to have four components (appreciation for a system, knowledge about variation, theory of knowledge, and psychology) but no discussion is offered and these four components are not treated individually in the book. His anger at the system is still evident: "The purpose of a school of business should not be to perpetuate the present style of management, but to transform it." The red bead and the funnel experiments are explained in detail.


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This is the best window into Deming's mind. Less a book than a collection of thoughts, bits of speeches and the notes for them, anecdotes and newspaper clippings, and lists — some of the material is excerpted from documents supplied by friends. Some ideas are incomplete (a list of six "diseases of American management style is given in the introduction to chapter 3, but only five are discussed); some material is repeated, verbatim in various parts of the book. The writing is disjointed and the grammar badly flawed. "The aim of this book is transformation of the style of American management."*


One of about a dozen books published between 1985 and 1990 expounding Deming's views on quality. Most, like this one, were authorized by Deming and carry, like this one, a one-page introduction by Deming. This book is also typical in presenting the political or FIR side of Deming's position and downplaying the statistical foundation. "Unless a change is made in the system (which only management can make), the system's process capability will remain the same. This capability will include the common variation that is inherent in any system. Workers should not be held accountable for or be penalized for common variation; it is beyond their control." The book is loosely organized on Deming's Fourteen Points.


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* Quality Progress.*

A monthly magazine published by the American Society for Quality. The articles are short and effort is made to present technical ideas in a fashion accessible to general readership. ASQ can be contacted at www.asq.org.


A highly technical book. But it is listed here because it is the best discussion available regarding the way tolerances (minimal standards) should be set.

**Editor's Note**

Summaries are available of the three recommended readings preceded by an asterisk (*). Each is about four pages long and conveys both the tone and content of the book through extensive quotations. These summaries are designed for busy readers who want the essence of these references in fifteen minutes rather than five hours. Summaries are available from the ACD Executive Office in Gaithersburg. A donation to the ACD Foundation of $15 is suggested for the set of summaries on red beads and funnels; a donation of $50 would bring you summaries of all the 2001 leadership topics.
Nine unsolicited manuscripts were considered for possible publication in the Journal of the American College of Dentists during 2001. Two were returned without review because they did not match the journal's publication mission. Of the seven sent for peer review, three (43%) were accepted for publication, some pending revision.

Thirty-three reviews were received, 4.7 per manuscript. Seventy-seven percent of the reviews that expressed a clear view were consistent with the final decision regarding publication. Cramer's V statistic, a measure of consistency of ratings was .490. A V-values of 0.0 represents random agreement and 1.0 represents perfect concordance. There is no way of comparing the consistency of the reviews for this journal with agreement among other reviewers because it is not customary for other journals to report these statistics. The College feels that authors are entitled to know the consistency of the review process. The Editor also follows the practice of sharing all reviews among the reviewers as a means of improving calibration.

The Editor is aware of three requests to reprint articles appearing in the journal and sixteen requests to copy articles for educational use.

The College thanks the following professionals for their contributions to the dental literature as reviewers for the Journal of the American College of Dentists during 2001.

Robert B. Alley, DDS, FACD
Knoxville, TN

Kathryn Atchison, DDS, FACD
Los Angeles, CA

Nancy S. Barton, DDS MS, FACD
Wauwatosa, WI

Phyllis Beemsterboer, PhD
Portland, OR

Joseph A. Blaes, DDS, FACD
Chesterfield, MD

Reynolds R. Challoner, MBA
Luxembourg, WI

Eric K. Curtis, DDS, FACD
Safford, AZ

David Donaldson, DDS, FACD
Vancouver, BC

William Dorfman, DDS
Hollywood, CA

E. Steven Duke, DDS, MSD
Indianapolis, IN

Samuel F. Dworkin, DDS, PhD, FACD
Seattle, WA

Allan J. Formicola, DDS, FACD
New York, NY

Paula K. Friedman, DDS, MSD, MPH, FACD
Boston, MA

John W. Hargrave, DDS, FACD
Pensacola, FL

John I. Haynes, DDS, FACD
Kansas City, MO

Marjorie Jeffcoat, DDS, PhD, FACD
Birmingham, AL
Several errors were identified in the article “Informed consent: direct posteriors composite versus amalgam” appearing in number two of this volume. In the first sentence on page 37, the percentage of patients indicating a strong desire for a DPC is 67%. On page 39, the first row of data (“I would prefer a tooth-colored filling...”) should be 24%, 19%, 21%, 19%, and 17%.
## 2001 Articles

**2001 Fellowship Class** .................................................. Number 4  
**Access to Dental Care: A Call for Innovation** .......... Number 2  
  Richard J. Manski

**A-dec as a Partner to Dentists** ............................... Number 4  
  Phil Westover and Ken Austin

**The American College of Dentists: A Vision in Action**  
  ................................................................. Number 4  
  Kenneth E. Follmar

**The Case for Dental Preferred Provider Organizations**  
  ................................................................. Number 1  
  Thomas D. Gotowka

**Dental Benefits Expanding Access to Dental Care**  
  ................................................................. Number 1  
  Evelyn F. Ireland

**Dental Education: One Dean’s Perspective** .............. Number 3  
  Michael C. Alfano

**Dental Insurance: A Purchaser Perspective** .......... Number 2  
  Pat Pehacheck and Craig Amundson

**Dental Insurance: Design, Need, and Public Policy**  
  ................................................................. Number 1  
  Richard J. Manski

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