Future Directions
For Public And
Community
Health Curricula
In Optometry
By Larry R. Clausen
Prepare your students for a career not just another class.

Supplement your instruction with these practical, new Mosby texts.

New 2nd Edition! **COMPREHENSIVE REVIEW OF ORTHOPTICS AND OCULAR MOTILITY: Theory, Therapy, and Surgery.** By Jane Hurt, R.N., A.A., C.O.; Antonia Rasicovici, B.A., C.O.; and Charles E. Windsor, M.D. This important new edition reviews significant factors involved in diagnosing and managing diseases of ocular motility. It includes new information on the use of miotics, prism therapy, the Faden operation, the nystagmus blockage syndrome, and penalization therapy. The popular question and answer format has been retained to provide students with a practical method of obtaining both general and specific information on all subjects discussed. November, 1977. Approx. 272 pp., 75 illus. **About $21.50.**

A New Book! **FITTING GUIDE FOR HARD AND SOFT CONTACT LENSES: A Practical Approach.** By Harold E. Stein, M.D., M.Sc.(Ophth.), F.R.C.S.(C). Designed in a convenient atlas-type format, this new guide graphically depicts and explains every step in fitting and using both hard and soft contact lenses. Extremely practical, it tells students "how to do it" without spending an inordinate length of time on such topics as: history, philosophy, physics, biochemistry, optics, and corneal physiology. The authors draw from their own considerable experience with contact lenses to offer personal suggestions on problem areas, and they try to anticipate areas of possible frustration. October, 1977. Approx. 384 pp., 461 illus. **About $13.50.**

**VISUAL OPTICS AND REFRACTION: A Clinical Approach.** By David D. Michaels, M.D. This unique text approaches optics from a clinical, rather than a mathematical viewpoint, and accurately describes the principles and techniques of refraction. Presented in an interesting, easily understood manner, topics include: the nature of light; basic optics; lens optics; cylindrical lenses; practical ophthalmic optics; physiologic optics; principles of refraction; cycloplegics; and much more! 1975, 528 pp., 391 illus. **Price, $29.50.**

2nd Edition! **OCULAR EXAMINATION: Basis and Technique.** By Arthur H. Keeney, M.D., D.Sc.; with 5 contributors. This book describes specific examinations which can help your students diagnose special problems, and discusses basic examination techniques for effective initial patient workups. Dr. Keeney incorporates the latest information in chapters on: exophthalmometry; ophthalmodynamometry and the diagnosis of carotid artery insufficiency; nystagmography; light sensitivity and dark adaptometry; and other important subjects. He also includes new discussions on clinical ultrasound, applanation dynamometry, electroretinography, and dyslexic evaluations. 1976, 346 pp., 200 illus. **Price, $21.50.**

4th Edition! **THE VISUAL FIELDS: A Textbook and Atlas of Clinical Perimetry.** By David O. Harrington, A.B., M.D., F.A.C.S. This 4th edition reflects the gradual refinement and improvement in existing perimetric examination methods and equipment to keep students completely up-to-date with advances in the field. Noteworthy topics include the Goldman perimeter, static perimetry, and optic nerve hydoplasia. Discussions first explore the visual pathway, normal visual field, instruments and special perimetric techniques, and the vascular supply of the visual pathway. Part II examines perimetry as an important tool in diagnosis, prognosis, and treatment of ocular and cerebral disease, particularly glaucoma. 1976, 431 pp., 424 illus. **Price, $25.00.**
# TABLE OF CONTENTS

**Volume 3, Number 2    Fall, 1977**

This issue of the *Journal* focuses on primary care and the aspects for optometry's involvement in the total health care system.

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Association Activities and Board Briefs</strong></td>
<td>2</td>
</tr>
<tr>
<td>A synopsis of actions and recommendations of ASCO's most recent Annual Meeting.</td>
<td></td>
</tr>
<tr>
<td><strong>Future Directions for Public and Community Health Curricula in Optometry</strong></td>
<td>5</td>
</tr>
<tr>
<td>by Larry R. Clausen, O.D., M.P.H.</td>
<td></td>
</tr>
<tr>
<td>A reprint of Dr. Clausen's keynote address presented at the Public Health Information Forum in Houston, Texas on March 26, 1977.</td>
<td></td>
</tr>
<tr>
<td><strong>University Involvement in Community Health</strong></td>
<td>10</td>
</tr>
<tr>
<td>by Harold A. Nelson, Ph.D.</td>
<td></td>
</tr>
<tr>
<td>The Director of the Fourth Ward Clinic in Houston, Texas, says there is no issue in university involvement in community health. Universities must simply take the initiative to become involved.</td>
<td></td>
</tr>
<tr>
<td><strong>Bates v. State Bar of Arizona</strong></td>
<td>14</td>
</tr>
<tr>
<td>by Burt Kraft</td>
<td></td>
</tr>
<tr>
<td>The recent Supreme Court decision affecting price advertising and its implications for optometry are explored.</td>
<td></td>
</tr>
<tr>
<td><strong>State Advertising Prohibitions for Optometrists</strong></td>
<td>16</td>
</tr>
<tr>
<td><strong>Health Manpower in Relation to Urban Health Care</strong></td>
<td>19</td>
</tr>
<tr>
<td>by G. Gayle Stephens, M.D.</td>
<td></td>
</tr>
<tr>
<td>The Dean of the School of Primary Medical Care at the University of Alabama, Huntsville, discusses the paradox of modern medicine and presents his requirements for health manpower in the urban setting.</td>
<td></td>
</tr>
<tr>
<td><strong>Education for Primary Care — A Student's View</strong></td>
<td>22</td>
</tr>
<tr>
<td>by Ronald E. Monacell, O.D.</td>
<td></td>
</tr>
<tr>
<td>A recent graduate compares his educational experience with a primary care externship at the Joseph C. Wilson Health Center in Rochester, New York.</td>
<td></td>
</tr>
<tr>
<td><strong>An Analysis of Education in the Health Professions</strong></td>
<td>25</td>
</tr>
<tr>
<td>by John G. Classe</td>
<td></td>
</tr>
<tr>
<td>Optometric educational statistics are compared with those of the other health care professions.</td>
<td></td>
</tr>
<tr>
<td><strong>Building for the Future</strong></td>
<td>25</td>
</tr>
<tr>
<td>by Sheila P. Worthington</td>
<td></td>
</tr>
<tr>
<td>A profile of the State University of New York, State College of Optometry, as it completes a long-awaited move to new facilities in midtown Manhattan.</td>
<td></td>
</tr>
</tbody>
</table>
The Association of Schools and Colleges of Optometry held its annual meeting in Toronto, Canada, July 1-3, 1977. Some of the highlights of that meeting are abstracted here because of their importance to optometric education and the profession.

Board of Directors Meeting Waterloo, Ontario, Canada July 1, 1977

The Board was invited to meet on the campus of the University of Waterloo, Waterloo, Ontario, Canada. A final report on the 1976-77 OCAT was given by the Council on Student Affairs. By consensus, the Board agreed that correlation between OCAT test scores and National Board test scores needed further analysis, although no formal action was recommended.

The Council on Academic Affairs reported that the teachers manual would be completed and distributed to the schools within six months.

The final report of the optometry curriculum model was presented to the Board for their consideration. Several issues relating to the curriculum model were debated, as well as the theory behind producing "curricular elements." It was noted that the study contains curricular elements which can be tailored to a curriculum at any school.

The Council on Academic Affairs recommended that further study be done in the areas of the pharmacology curriculum and the behavioral sciences curriculum during the ensuing year.

Considerable discussion surrounding the definition of an optometrist was held. While most of the members felt such a definition would be useful, many were concerned about the use to which such a definition would be put. A task force between ASCO and AOA was proposed to seek a more comprehensive, acceptable definition.

The Council on Institutional Affairs reported on plans for new institutions in various states and the extent to which the plans have progressed.

Objection was raised about the use of the terms "patient" vs. "patient visits" in the health manpower shortage area designations being developed by HEW. It was pointed out that the busy practitioner has nearly four times as many patient visits as he has patients. The Board resolved to notify the Director of the Bureau of Health Manpower that a factor of four should be used to upgrade "patients" to "patient visits" in the optometry section of the health manpower shortage area designations.

Efforts surrounding optometry's input into the new VA legislation and to establish qualifications standards were discussed. It was reported that an optometric advisory committee had been appointed by Dr. Ken Myers, Director of Optometry Services for the VA.

UCB reported disappointment in efforts to obtain a VA rotation in a San Francisco hospital.

SCCO reported that it had received funding to establish a clinic under VA law 92-541 manpower grants. It was noted that guidelines had been developed for these grants and that a draft letter would be distributed when the new rounds of applications were to be opened. A priority example in the application materials was for low vision rehabilitation.

The Executive Committee was asked to look at the issue of payment of state funds to private institutions.

The Board was invited to meet on the campus of the University of Waterloo, Waterloo, Ontario, Canada. A final report on the 1976-77 OCAT was given by the Council on Student Affairs. By consensus, the Board agreed that correlation between OCAT test scores and National Board test scores needed further analysis, although no formal action was recommended.

The Council on Academic Affairs reported that the teachers manual would be completed and distributed to the schools within six months.

The final report of the optometry curriculum model was presented to the Board for their consideration. Several issues relating to the curriculum model were debated, as well as the theory behind producing "curricular elements." It was noted that the study contains curricular elements which can be tailored to a curriculum at any school.

The Council on Academic Affairs recommended that further study be done in the areas of the pharmacology curriculum and the behavioral sciences curriculum during the ensuing year.

Considerable discussion surrounding the definition of an optometrist was held. While most of the members felt such a definition would be useful, many were concerned about the use to which such a definition would be put. A task force between ASCO and AOA was proposed to seek a more comprehensive, acceptable definition.

The Council on Institutional Affairs reported on plans for new institutions in various states and the extent to which the plans have progressed.

Objection was raised about the use of the terms "patient" vs. "patient visits" in the health manpower shortage area designations being developed by HEW. It was pointed out that the busy practitioner has nearly four times as many patient visits as he has patients. The Board resolved to notify the Director of the Bureau of Health Manpower that a factor of four should be used to upgrade "patients" to "patient visits" in the optometry section of the health manpower shortage area designations.

Efforts surrounding optometry's input into the new VA legislation and to establish qualifications standards were discussed. It was reported that an optometric advisory committee had been appointed by Dr. Ken Myers, Director of Optometry Services for the VA.

UCB reported disappointment in efforts to obtain a VA rotation in a San Francisco hospital.

SCCO reported that it had received funding to establish a clinic under VA law 92-541 manpower grants. It was noted that guidelines had been developed for these grants and that a draft letter would be distributed when the new rounds of applications were to be opened. A priority example in the application materials was for low vision rehabilitation.

The Executive Committee was asked to look at the issue of payment of state funds to private institutions.

Annual Session Toronto, Ontario, Canada July 2, 1977

A joint meeting with the National Board of Examiners in Optometry was held. The Board adopted a resolution urging the NBEO to rename and restructure examination section 8 (SLEEPA) to become Public Health, Community Optometry and Optometric Jurisprudence.

A broadly based task force was suggested to study the content and coverage of the NBEO in light of changing curricula at the schools and colleges. The Board subsequently voted to create a joint task force between ASCO and the NBEO to reexamine and make recommendations to the National Board on the objectives and format of the National Boards examination.

A joint meeting with the Council on Optometric Education was also held. Changes in the annual survey of optometric institutions were discussed, and it was suggested that the COE ask clinic directors about the reporting mechanisms they might need to develop data for the survey.

A resolution thanking the American Optometric Association and its President, Dr. Ron Fair, for the convening of Think Tank III was unanimously approved.

AOA-NBEO student representatives met with the annual session representatives to discuss confidentiality in the use of NBEO scores. The student representatives explained that students were being accosted by faculty members critical of their performance on the NBEO even before the student knew his own scores. A recommendation had been made to NBEO that an independent auditor screen names and submit the scores to schools with numbered identifiers for correlation and validity studies.

It was pointed out that the Council on Student Affairs needed the scores for correlation studies and that some schools used the scores for independent academic evaluation.

A resolution was subsequently passed at a joint meeting among
ASCO, IAB, NBEO, AOSA and COE representatives requiring a written request assuring confidentiality from a responsible administrator of each school before release of the scores could be made.

Representatives from the Indian Health Service briefed the annual meeting representatives on IHS activities. The IHS representatives issued an open invitation to set up coordinative programs between schools and Indian facilities. A two-way information flow was urged between the IHS and the schools concerning availability of service area contracts.

The annual session representatives also met with representatives from the International Association of Boards of Examiners in Optometry where various questions relating to state boards and education were raised and answered in a general and informative discussion.

A motion to amend the Bylaws by adding a Chapter 8 permitting amendment of said Bylaws only after notice was approved.

A resolution was unanimously adopted endorsing the creation of the Professor Anna Berliner Memorial Lecture to further scholarly contribution in the field of visual and optometric science in honor of the late Anna Berliner, Ph.D., Professor Emeritus of Psychology, Pacific University.

Resolutions were also passed thanking Dr. and Mrs. Emerson Woodruff of the University of Waterloo for their gracious hospitality and Dr. and Mrs. B. C. Matthews of the University of Waterloo for exemplary leadership in the advancement of higher and professional education.

In addition, resolutions commending Drs. Norman Wallis, Chester Pheiffer and Jerald Strickland for their service and contributions to the Association were passed.

The slate of officers submitted by the Nominating Committee was adopted, and the new officers were elected. They are: Dr. Alden Haffner, President; Dr. Alfred Rosenbloom, Vice-President; and Dr. Frederick Hebbard, Secretary-Treasurer.

Board of Directors Meeting
Toronto, Ontario, Canada
July 3, 1977

The Board met with guests from the American Optometric Foundation. AOF fund raising activities for the present year were discussed which included a membership drive and soft lens conferences.

ASCO representatives to the AOF Board of Directors stressed the need for executive committee planning, continuity of leadership and outside professional help on the part of the AOF.

AOF officers urged another year of activity before reevaluating the association and offered to hold two board meetings a year for the purpose of keeping ASCO Board members informed of AOF activities. In addition, copies of minutes of the AOF’s Executive Committee meetings would be circulated to all of ASCO’s Board members.

A joint meeting was held with the Commission on Continuing Education. The National College on Continuing Education was discussed briefly, as well as the new academic facilities task force consulting service.

The Board moved to adopt the budget for the 1977-78 academic year as presented by the Executive Director and the Executive Committee. A motion was also passed requiring all future ASCO budgets be presented for one year in advance together with historical information.

Mandates were identified for which ASCO will take to the Council on Optometric Education and the AOA in pursuit of a common definition, and new school programs developed under adopted guidelines for which ASCO will provide consultants.

Implications in the last health manpower legislation for VOPP and particularly how it would relate to optometry were discussed.

A Constitution and Bylaws Committee was formed to look at the mechanism of the annual meeting and the possibility of creating a post of president-elect.

A committee was named to explore the possibility of adding public members to the Board, and an Interprofessional Relations Committee was appointed.

Finally, recognizing that the identity of optometry has been merged into a vague concept of “eye” care and the term “eye” is extremely limited and does not convey the true role and scope of optometry, the Board adopted a resolution calling for the use of the term “optometry” in every possible context when naming or referring to institutions or services concerned with optometry and that whenever the term “optometry” cannot be used, that the term “eye” not be used in isolation but always in conjunction with the term “vision” as “eye/vision.”

In addition, recognizing that the Doctor of Optometry degree is a terminal professional degree and has been established and accorded recognition by regional and national accrediting agencies, the Board passed a resolution affirming that the Doctor of Optometry degree is a terminal degree for professional and clinical practice, that academic advanced degrees are not to include the term “optometry” as in Master of Optometry or Ph.D. in Optometry and that recognition of the completion of clinical specialties be recognized through the mechanism of the certification process.
Larry R. Clausen, O.D., M.P.H., is Regional Program Consultant for HEW in Seattle, Washington.

Future Directions For Public And Community Health Curricula In Optometry

By Larry R. Clausen

Larry R. Clausen, O.D., M.P.H., is Regional Program Consultant for HEW in Seattle, Washington.

4 / Journal of Optometric Education
The Public Health Information Forum was planned and organized to provide for the exchange of ideas about Optometric public and community health and to make recommendations for improving the basic public health curriculum within the schools and colleges. The forum was sponsored by the Public Health Committee of the American Optometric Association and was attended by more than 45 practitioners, educators and AOSA student representatives.

Presented at the Public Health Information Forum, March 26, 1977, Houston, Texas.

Introduction

This is indeed a historic meeting, for today we have gathered for the first time that select group of educators and administrators who are committed to and involved in optometric public health education. Hopefully this will be but a beginning of a continuous effort to develop a strong curriculum model for optometric public and community health. I appreciate being able to share some opinions concerning health professions education and community health from the perspective of an administrator of federal programs impacting on health professions education.

General Educational Trends

There are many trends developing in health professions education institutions across the country. Three trends will be briefly mentioned. These are increasing emphasis on educational research, increasing utilization of educational objectives, and improving or initiating faculty development programs. Obviously, there are others that might be employed to improve optometric education.

The first of these, educational research, is an area that must be addressed by all institutions. Optometric academia has contributed little to the body of research directed at improving teaching methodologies. The conceptual and physical methods used in professional education for measuring cognitive ability and achievement and for transferring knowledge and skills to students are subject to constant refinement. Thousands of research studies on teaching methods have been completed, but most optometric institutions fail to adequately assess what is available. This body of research must first be analyzed and integrated into optometric education, and, second, the schools must implement their own research for improved methods of attaining their educational objectives.

The second area, utilization of educational objectives, is also one that should be addressed. By no means have all institutions or professions accomplished this task, but a survey of the literature will reveal attempts by most professions to do so. Curriculum guides, books and monographs in the professional literature of medicine, dentistry, veterinary medicine and podiatry reveal carefully prepared course and professional objectives for public health. In addition, the literature of these disciplines contains numerous articles on the development of educational objectives for the health professions. A review of such publications reveals that educational objectives are necessary to comparatively assess proposed curriculum changes for evaluative purposes.

While the employment of improved educational methodologies and the utilization of clearly defined course objectives can improve the quality of instruction, they will only be successful in an environment marked by quality faculty. The faculty for public health programs must not only possess the training and background to achieve stated educational objectives, they must also practice the principles embodied in public and community health concepts. To ensure quality faculty, it is necessary to provide for ongoing faculty development programs so that existing faculty can improve their knowledge base, become more effective educators and remain current with optometry's expanding health role. It is unlikely that institutions can markedly improve their educational programs without such a structured faculty development program.

It is important to consider these items when curricular changes are discussed; the focus must not be only on course...
content. While content needs to be described, one must also consider the teaching methods for delivering that content, the instruments for measuring student performance and course effectiveness, and the means for developing and maintaining faculty competencies with respect to that content.

During the 1960's, public health courses crept into the optometry curriculum. More recently, they have been augmented by community health programs. For this discussion, public health education is defined as the study of organized efforts both public and private to promote and maintain the health of selected individuals or communities. Community health is defined as the broader study of the relationships of health resources to health problems of a community and the relationship of those problems to other sociological, economic, and political factors. My own bias is that public health education can be didactic in nature, but community health education should be clinical in nature. In a sense, community health is the practice for the public health didactic courses. Obviously, these terms deserve a better definition, but the above does provide a weak operational definition.

Responses By Other Disciplines

Within nursing education, the teaching of public health principles has been a longstanding component. The nursing student receives instruction in illness prevention, health maintenance, human nutrition, and principles of public and community health with an overall emphasis in the area of health promotion. The nursing profession has had a longstanding history and commitment to the principles of community health. Nursing public health evolved out of programs in health departments and visiting nurse agencies dating back to the 19th century. Nursing students today can pursue graduate health programs in community health nursing which has been defined as "a synthesis of nursing practice and public health practice applied to promoting and preserving the health of populations. The nature of this practice is general and comprehensive, not limited to a particular age or diagnostic group and is continuing, not episodic. The dominant responsibility is to the population as a whole."

A community nurse practitioner training program at the School of Public Health, University of Texas, Houston, has combined the core public health didactic course work with clinical training in the community setting. Students in this program define a specific community population, identify its health problems and plan for alleviating those problems. The community nurse practitioner functions as a facilitator and collaborator to resolve such problems as low immunization rates, poor nutrition and drug abuse. It cannot be overemphasized that this program trains the nurse to be an active participant in resolving community health problems. This program and other nurse practitioner programs require additional clinical or community training to develop competent primary care practitioners, practitioners that are trained to respond to unmet community health needs.

The profession of podiatry has also incorporated public health education into its curriculum and is developing community podiatry educational programs. The didactic course work is generally designed to train students to understand health problems and needs of the community, to be familiar with community resources and to understand the manner in which health care is organized, delivered and financed. Related clinical programs are developed to provide interaction with medicine and other professions, to provide the students with an understanding of health problems as related to social, cultural and economic factors, to develop an attitude of viewing the individual and family in relation to their environment, and to understand the role of podiatry as part of the health care system. These programs have moved podiatry from relative isolation into community oriented, multidisciplinary delivery models.

The response in medical schools has varied but is evident in well established educational approaches such as preceptorship training in primary care settings, increased emphasis on family medicine and ambulatory care, clerkship rotations in rural areas, combined MD/MPH programs, utilization of problem oriented medical records, increased emphasis on human nutrition, and exposure to social impact of medicine. It should be noted that many of these require modification in clinical training. Such changes require major alterations in the curriculum and are indicative of an institutional commitment to resolving community health problems. Admittedly, not all medical schools are responding, but there are those institutions whose graduates will
have had a heavy exposure to family medicine, community health and primary care.  

Within dental schools we now see a greater emphasis on public health and community dentistry. This change is due, in part, to a commitment to make dental care available to all segments of a population. Schools are developing special programs for services to the handicapped, the aged, the poor, low income families, migrants and other special population groups. A second effort is aimed toward making the dentist more efficient by increasing his use of auxiliary workers. Special federal grant programs now support this effort through TEAM training and continuing education grants. The emphasis in these programs is the concept of four-handed dentistry and the delegation of duties to trained auxiliaries.

The dental profession has delegated traditional duties in a greater quantity to auxiliaries than any other profession as one approach to meeting the demands of the community. One study has shown that 43 percent of the operating time of the dentist was assumed by expanded-duty auxiliaries.

Other program elements in community dentistry include the training in preventive measures relating to community water fluoridation, dental hygiene and nutrition. Also, some schools have implemented special courses in human behavior designed to improve the student's patient communication skills, to increase understanding of health education and health behavior modification and to increase sensitivity to patient problems. In addition, students normally participate in dental screening and dental health education projects.

Clinical training has moved away from the dental schools into a variety of delivery system models. Also, the clinical emphasis is moving away from specialization toward the area of general dentistry. Again, we see that the response to teaching public health and community health involves a combination of didactic and clinical training.

In brief, other professions are addressing many recognized community health problems. While optometric institutions have realized the need to infuse community health principles into their educational programs, no program has been developed to the point of satisfaction. This latter point is underscored by the recent Milbank report, "Higher Education for Public Health." Much of what optometry can and should do will not be innovative, but it is necessary. Obviously educational programs developed by other professions cannot serve as an exact paradigm for optometry, nor should optometry strive to produce a symmetrical copy of other disciplines' community health training programs. However, there is much to learn from these disciplines, and it is logical to utilize the available resources of other community health training programs.

The Role of Community Health in Optometric Education

It is this author's belief that optometric public and community health must be a major component of optometric education. It should not only be a part of the curriculum, however; it should be the essence of the curriculum. This requires a teaching sequence that impacts on all professional years; early and continuous exposure is essential. Importantly, a student must receive clinical training in community oriented settings and must be exposed to a faculty and administration that demonstrates the principles of community public health.

While the teaching of public health principles can be accomplished in a classroom setting, the application of these to a community situation must be taught in the community itself. If optometry schools are to train community health practitioners, optometry students must receive clinical training in community health centers, become involved with community health agencies, and be given the opportunity to demonstrate an understanding of community health principles. The optometrist's uniqueness will be his ability to understand and resolve the vision care needs of the community. These needs cannot be defined as isolated health problems, but rather must be viewed in their proper context as they relate to other individual, family and community health and social problems. Optometric education has traditionally trained the isolated eye specialist; the institutions must now train a community health generalist. No profession is an island; each and every one is part of the mainstream of health care.

The education model for optometric public and community health curricula should not only be designed to infuse students with knowledge and concepts relative to public health but should imbue the student with a philosophy and attitude that will motivate him/her to assume a role as a health profession-
al, sensitive to the public health needs of society. This model must contain both a didactic sequence and a clinical segment. Both are essential elements, even for what might be considered a minimum program.

With respect to the didactic sequence, a series of courses should be outlined that will address the following:
- Public and community health principles;
- Health care delivery, financing and planning;
- Health manpower and other health resources;
- Epidemiology and demography;
- Principles of human behavior;
- Environmental vision;
- Principles of health education and health prevention, and
- Quality assurance.

With respect to the clinical training component, models must be developed that will provide the students with the following:
- Clinical training in multi-disciplinary settings;
- Clinical training in a variety of community delivery systems;
- Training which responds to the unique needs of special population groups;
- Practice that necessitates interaction with public and private health, education and welfare agencies;
- Experience that requires the development of interprofessional skills;
- Experience in developing and utilizing general health screening and referral skills, and
- Experience in health education and preventive techniques.

These community clinical programs should be the rule rather than the exception.

Some optometry schools have developed objectives for didactic training, but educational objectives for clinical training seem to remain largely undeveloped. These objectives must be defined. At a minimum, I believe that the objectives of the clinical training segment should be:

1) To provide the student with an understanding of community resources, health care delivery and the role of optometry to the community;
2) To expose the student to the patient’s complex health environment and the patient’s relationship to other community health resources;
3) To provide skills in general health and social assessment, and patient referral;
4) To provide training in the use of paraprofessional personnel;
5) To recognize the need, advantages and disadvantages of different delivery models;
6) To recognize the importance and necessity of all disciplines and understand their relationship to optometry;
7) To develop interprofessional relationships; and
8) To demonstrate optometry’s role as a social discipline.

Obviously, one can add and improve upon this list, but it is essential that we develop educational objectives, both for didactic and clinical programs.

The profession has been remiss in defining educational objectives for public and community health or, for that matter, in defining optometric public and community health. One can pull off the library shelves textbooks entitled, “Principles of Public Health,” “Principles of Dental Public Health,” “Community Health Nursing,” “Pharmacy and Public Health,” and “Community Medicine;” but when one looks at the text entitled, “Principles of Optometric Public Health,” there is a striking difference—the pages of this book are blank.

We have yet to define, to write for our profession, for other disciplines and for consumers our principles of public health. This forum will be a beginning. It was Albert Einstein who said, “To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination.” The burden of being creative is upon your shoulders, and I hope that we can begin to define common solutions to old problems to improve optometry’s response to the society which it serves.

References
RELIANCE combines a “high rise” chair and an instrument stand to bring you a new standard for efficient ophthalmic examination—the Combo 2000.

A mere 45 inches wide, the 2000 requires minimum space, yet provides maximum patient access. Available in two models, the fully powered 2000-80 provides effortless patient positioning from seated to supine. Both the 2000-80 and the non-powered 2000-65 are ambidextrous—use left or right handed.

Three major instruments are accommodated through the use of a third arm (not shown) that extends from the instrument pedestal. The swiveling console holds three rechargeable or corded instruments. A fourth hand instrument can be fitted to the console’s binding posts.

Choose from a wide selection of upholstery in vinyl or vinyl with nylon tweed insert. Both feature color-keyed epoxy enamel bases.

Get complete information from your RELIANCE dealer, or write: F & F Koenigkramer, 96 Caldwell Drive, Cincinnati, Ohio 45216, Dept. 000.
For some thirteen years I was a university professor. During that time, my conviction grew that while I did know some things, I knew very little which was of direct relevance to the solution of human problems, even on the most micro of levels. Thus, I left university teaching, returned to school and then went away from universities for a while. Now, marginally, I am back. Hence, on this day, I am a sociologist, a visiting professor and the director of a health clinic invited to speak on a subject which is of considerable concern to me but one upon which I continue to shed more, possibly irrational, heat than light.

At any rate, I proceed with the understanding that I will have little or nothing to say about issues beyond the delivery of primary health care. What I have to say on the subject will be drawn largely from two personal experiences, one as coordinator of the Poor People’s Health Council in Rossville, Tennessee, and the other as Director of the Fourth Ward Clinic in Houston, Texas. In Rossville, I was involved in primary health care in a rural area, one of the very poorest of the United States—a place where, for the majority of the non-white population, the median family income was $2,712 per year; non-white infant mortality rates indicated that one of 20 babies born alive would die before the first year of life; and a host of other indicators revealed what one expects to find in desperately poor rural areas.

The medical problems, too, were what one might expect in such a setting—malnutrition, hypertension, diabetes, arthritis, dental disease, and so forth. Here, let me describe the Poor People’s Health Council so that I may comment on university involvement there and compare it with such involvement in the Fourth Ward Clinic.

The health clinic in Rossville was put together by a coalition of poor people of the area plus the Catholic Diocese of Memphis, and other church groups, the Tennessee Valley Authority and an organization of medical students from Vanderbilt University and Meharry Medical College. The Health Center offered primary medical care, physicians, nurses, laboratory, pharmacy and so forth. In addition, an extensive well water testing program was conducted, and paralegal and social service programs were offered.

University involvement included the University of Tennessee’s School of Pharmacy providing the services of two part-time clinical pharmacists who established the Health Center pharmacy and monitored chronic health cases. This we received from them for $7,000 a year. A chemistry professor at Vanderbilt University trained high school students in the use of our well water testing equipment. Law students from Vanderbilt University trained local residents in welfare law so that they might act as community advocates for other residents of the Rossville area. Hence, in summary, university involvement consisted of one chemistry professor, pharmacy professors, law students, and medical students. The overriding impression of university involvement was simply that medical, nursing, and legal students became involved, but not their mentors.

Now to the situation in Houston. While the Fourth Ward Clinic is available to all, its primary focus is upon the population which resides in the Fourth Ward and surrounding areas—a population which lacks reasonable access to primary health care services. Of the approximately 20,000 persons in the clinic’s catchment area, approximately 8,700 are located in the Fourth Ward. Some three-fourths of these residents are black and perhaps 15% are Mexican American. The population is described by census data as follows: median family income is $3,383; 25% of all families have incomes below $2,000; and slightly more than 60% have incomes below $4,000. Fifty-percent of all families have incomes which fall below officially designated poverty levels.

The median education level for persons 25 years and older is 8.0 years and only 16% of the population hold high school diplomas. Of those in the labor force, 39% are employed as semi-skilled and unskilled workers and 41% are employed as service or private household workers. Approximately 40% of the population are 14 years or younger and some 15% are 65 or older. Thus, 55% of the population

**Harold A. Nelson, Ph.D., is Professor of Sociology, University of Houston, and Director of the Fourth Ward Clinic, Houston, Texas.**
either are in or have a high degree of probability of entering a status of dependency upon others.

In an area where the most likely family physician for many of the residents is the Emergency Ward at Ben Taub Hospital, 73% of the population do not have access to an automobile. Finally, some 90% of the dwelling units in the area were built more than a quarter of a century ago and 55% were built before 1940. In short, the Fourth Ward is one of the oldest sections of Houston and is its poorest. It is, in fact, the poorest area of Harris County and one of the four poorest of the Houston Standard Metropolitan Statistical Area.

For some six years the clinic operated in various places in the Fourth Ward and its environs. Last September, the religious group which had established the non-profit corporation closed the doors of the clinic and stated that that group’s mission lay elsewhere. They closed the doors of a clinic which had, at times, served at least 110 patients per day. From September 1976 to February of this year, a group of private citizens debated whether it would assume the corporation’s directorship and, not unimportantly, its $26,000 debt. Last February, this group of lay persons did assume control of the corporation, and on April 27 of this year, the clinic reopened.

During this time, the University of Houston’s School of Social Work has signed an agreement to provide the services of social work students at the clinic. The University of Houston College of Optometry has offered a contract for the establishment of a vision clinic at the site. The University of Houston supported the production of fund-raising brochures which the clinic has sent to persons in an effort to raise the money needed to sustain itself. The University’s College of Social Sciences, through its Dean, has awarded $500 to the clinic in the form of an award to two faculty members for community service to the clinic.

The University of Houston then, to date, has evinced some interest in the Fourth Ward Clinic. But neither it nor other health related institutions have rushed to the Fourth Ward Clinic to join with it in its efforts to serve a segment of the poor people of Houston, and this is not, I think, surprising. In fact, it may be more surprising that there is any involvement at all. I say this because universities are notoriously conservative institutions. They do not take risks. In this, they are not unlike other organizations wherein the personnel involved, career oriented as they are, do not wish to take chances with their careers on ventures which are perhaps more likely to fail than to succeed. There are a good many different ways of saying this, but in fact, universities do not risk. They are conservative institutions and, other than services they provide the powerful of society and of their local communities, they tend to shy away from what could be called community involvement. Certainly, Robert Hutchins’ old statement, “A University which is not at war with the community that surrounds it is not doing its job,” is an aphorism not noted for its presence on administrator’s walls.

Let me not be misunderstood however. This issue transcends the role of administrators and goes directly to the heart of the faculty. Faculty members themselves are not noted for their wish to go beyond the walls of the university unless they are carried in the vehicle of...
a large research grant thereby guaranteeing that their only involvement with persons in the outside world is protected by some abstract research condom. In most instances, in fact, the academic who wishes to be involved in some sort of "community activity" faces, if not censure from colleagues, at least their disapproving stares. Perhaps the most frequently cited criticism in my own discipline is that to become "involved in the community" threatens to destroy the needed objectivity of the scientist if his role is to be properly played. Far from interfering with that role, I believe that it is enhanced considerably by such involvement.

Social scientists supposedly are experts in the dynamics of social arrangements. Further, they enjoy the protected leisure time to contemplate these arrangements. Such a setting would appear conducive to developing some coherent ideas about injustices, anomalies, problems and solutions to problems attendant to the delivery of such services. Still further, given the protections of tenure, one might expect that they are in an ideal position to venture out into the tricky waters of human reality to try out some of their conclusions. In short, one might well expect to find academics in the forefront of efforts to redress grievances. Not only is this not true (academics go to great pains to insist that such activity must not be expected of them); this is absurd.

I firmly believe that what lies deepest in human beings is not their reason but what they want to accomplish with it. I also believe that the world of the academic is a difficult one, at least initially, because this feeling is placed in an organizational context in which the entire emphasis is upon not taking risks, not taking chances, isolating oneself from risks, isolating oneself from chances—simply put, turning a university into some sort of intellectual convent. The question is not, hypothetically, whether universities have anything to contribute to community health. Obviously, again hypothetically, they do. It is not how much they should contribute. This is a detail problem. It is whether universities and their personnel have the courage to take the risks which are necessary to learn and to do.

This would demand, in my estimation, a degree of political and personal courage which is not often evident within universities. At a minimum, the insistent and overriding question, "But what if the project fails?" must be put aside. There must finally be an understanding that projects do fail, that individuals do make mistakes and that it is no cardinal sin either to make mistakes and to make them publicly or to fail and to fail publicly. The cardinal sin for universities is not active but passive failure—the failure to make use of the knowledge they have. If active failure attends, so be it. This is understandable. What I find morally nonunderstandable is the absolute, paralyzing fear of many academics to risk their knowledge in an environment they do not control.

Because this fear to be tested by the world is so pervasive, those times when university personnel do involve their knowledge with human problems are all the more impressive. Yet, one of the most impressive examples involves not academics but their students. The Center for Health Services at Vanderbilt University, which involves Vanderbilt and Meharry medical, nursing and Vanderbilt law students, has taken the lead in statewide concern about rural health issues. Not only have these students provided the human power for summer health fairs, they have gone out and helped establish community health clinics—not their mentors, not social scientists, not medical professors, but health students. They are guided by the belief that "the transfer of resources from the academic setting to community action can be a dynamic educational experience or a disastrous exploitive one." Perhaps the key to averting exploitation in the name of community service lies in insuring that the educational exchange involved in the transfer is a mutual process including community people, students and professionals.

The Center for Health Services is committed to this pattern of education as a broad experience in incorporating academic expertise and skills but expanding that to include education not available in the classroom, that is, through community involvement for both local people and students. The educational experience often begins with academic research, but extends to develop that research into action. The center's commitment to communities thus involves facilitating the interplay of skills traditionally developed in university settings with health related concerns of communities historically excluded from access to those skills. In this process, community people benefit from the expertise of professionals and the enthusiastic work of students, and the people from the university benefit from exposure to rural communities' health care needs and from interaction with people from these areas.

Understand, this is entirely different from faculty members or students wandering out into communities as advisors, consultants, and so forth. Advisors and consultants too frequently bear no effective responsibility for their actions. Students at the Center for Health Services assume responsibility for success or failure of a project. They put themselves "on the line." So do the Vanderbilt law students who have gone throughout the state training paralegals, training community advocates, who themselves created a remarkable book in Tennessee called the Rights and Benefits Handbook—a "cookbook", if you will, of benefits programs, written in lay language so that persons of less than a high school education could understand benefits programs, how to apply for them, and how to know when they were being denied illegally. This book and the law students who wrote...
it have gone throughout the state training local community residents to understand welfare law and to act on behalf of their neighbors.

Finally, a non-university organization such as the East Tennessee Research Group provides ample training for students in the legislative process and in lobbying for health legislation beneficial to the people of that region of the country. In shortest possible form, the activities of the Center for Health Services, the East Tennessee Research Group, and the law student program at Vanderbilt University, direct the attention of students to the community, involve students in the community, benefit members of the community and provide valuable training for the students themselves. There is no reason why faculty members could not be involved as well.

I have, at times, outlined to university persons in various states, programs such as I have described here and have not told them they were in operation. Almost uniformly I am advised that they cannot work in universities. I begin to feel that they may not be able to work in universities if professors and/or administrators are the major foci of the programs. They do work if students are the major foci, because they have worked. Please understand that I am not saying that no faculty members or no administrators have been involved in community oriented activities. Indeed they have. At this university there are several persons who have spent considerable time in community projects, who, in fact, have taken the university to the community.

I am saying, however, that at the very least, involvement in communities is not regarded "as a mission of universities." Understand, for me, involvement means acceptance of responsibility, hence involvement of universities in community health means acceptance of responsibility for something involving the health of the community. But, in accepting responsibility for something, the academic should have some knowledge of the subject. More than anything else, social scientists require experience with the consequences of actual social intervention in social processes. (And to gain such experience in intervention they must accept responsibility for such efforts at intervention.) What faculty and students alike must have is greater field experience in actually applying solutions to living situations which can then be fed back into learning situations.

This is precisely what the Fourth Ward Clinic can provide to faculty and students alike, to the University of Houston in general, and to other educational institutions within the city of Houston. This, we can offer: a research and training laboratory for students and other health related professionals. It can be, in fact, a part of a broader and more impressive training and research effort. Intended or not, the Fourth Ward Clinic and clinics like it throughout the nation exist as a political statement, as an indictment of the health delivery system of the United States. The people of the Fourth Ward area of Houston are unimportant to the city, to the county and to the state. So it was in Rossville, Fayette County, Tennessee, one of the poorest counties in the nation. The 23,000 people who lived in that county were unimportant to the United States of America. If this nation could have come to terms with genocide, the people of Fayette County and the people of the Fourth Ward of Houston, Texas, would have been annihilated as economically useless.

By establishing a clinic in the Fourth Ward area of Houston, private citizens, non-radical private citizens, and organizations of Houston took up the failure of the health system in this country and attempted to remedy one of its defects. There can be no more conservative action imaginable than to help out the health delivery system of this country by attempting to cover for its failures rather than denouncing it for those failures. The task, or the goal, in short, of the Fourth Ward Clinic is sufficiently conservative to interest universities and to form a basis for seeking universities to risk with it.

I submit, then, that the University of Houston, on its own or in concert with other health related institutions, should establish a coherent mechanism whereby students and faculty as part of their normal training are allowed to be part of actual implementation of alternative solutions to aspects of health care delivery. There is no reason why this university and others, if they will, cannot utilize such organizations as the Fourth Ward Clinic, as part of their commitment to the City of Houston, to improve the life of its citizens, to examine conditions under which social change occurs and succeeds or fails, and so forth.

Students operating in such settings would have the responsibility, along with their mentors, of carrying out an organized effort to achieve some change in the health status of the community and provide some good in the community. At the same time they gained experience in the delivery of services, they would have the opportunity to evaluate such efforts and to judge their worth. I believe that there is an extraordinary need in the Social Sciences for professionals to be trained inductively in the field and for theory and research to be based on this kind of clinical experience. I believe that social science professionals, faculty and students might learn at least as much by participating in field activities as they do in their classes.

Actually, I believe they would learn a great deal more. We have attempted to give this belief substance in the health Master's program offered by the Department of Sociology at the University of Houston. The program is predicated upon the belief that our students, students in health sociology, cannot be well trained in that discipline unless they

Continued on page 28

Journal of Optometric Education / 13
By a narrow margin of five to four, the Supreme Court of the United States, on June 27, 1977, ruled favorably on the right of lawyers to advertise their fee for "routine" legal services. This decision came on an appeal from the Arizona Supreme Court in the case of Bates v. State Bar of Arizona.

Two Arizona state licensed attorneys, John R. Bates and Van O'Steen, in order to stimulate the public's awareness of their "legal services at very reasonable fees" placed an advertisement in the Arizona Republic, a daily newspaper of general circulation in the Phoenix metropolitan area. The advertisement in addition to listing the location of their "legal clinic" also indicated their fees for certain services. The two attorneys conceded that the advertisement was in clear violation of the state bar association's disciplinary rule which states that a lawyer shall not publicize himself or have anyone else publicize his services in the newspaper or any other media.

On appeal to the U.S. Supreme Court, however, it was held that the disciplinary rule violated the lawyers' First Amendment rights. Advertisements of "routine legal services" were protected by the First Amendment, the court decided, and on this issue alone, overturned the Arizona court's decision. "In short, . . . [commercial] speech serves individual and societal interests in assuring informed and reliable decision-making," the court noted.

The Inherently Misleading Nature of Advertising

For their part, the State Bar of Arizona argued that advertising would be misleading to the public because "(a) such services are so individualized with regard to content and quality as to prevent informed comparison on the basis of an advertisement, (b) the consumer of legal services is unable to determine in advance just what services he needs, and (c) advertising by attorneys will highlight irrelevant factors and fail to show the relevant factor of skill."

In regard to the first so-called "misleading" arguments, the court agreed that many services which are performed by lawyers are unique and therefore doubtful that any attorney could affix a price to this type of service. However, the court demonstrated that simple services of a routine nature—uncontested divorces, the simple adoption, the uncontested personal bankruptcy, the name change, and the like—could be advertised at fixed prices because of the apparent standardization of these services.

This situation in reference to optometry is of a different nature. All services performed by an optometrist are unique and specific for the individual patient involved. There is no common agreement of a precise definition for a "routine eye examination" because of the uniqueness of each patient and his response to varying test procedures. It is because of these unique services that optometrists would have great difficulty in advertising fixed prices. Therefore, in contrast to the legal profession, optometric advertising could be misleading because of primitive efforts at standardization in optometric services. Lists of services and fees are maintained by third party payers, but even these vary widely and are complicated by degree of difficulty involved.

The second "misleading" argument states that advertising ignores the diagnostic role. This is of great importance to optometry. When most patients seek out an optometrist it is for the purpose of determining whether the patient has a clean bill of optometric health or to diagnose and treat a specific symptom. Due to the specialized training and knowledge, the optometrist is the one who determines what tests or procedures are necessary to perform. The patient who lacks this knowledge would have no idea what services he required, and it is because of this reasoning that advertising would simply confuse the patient and delay the process of his seeking help.

This, however, was found to be quite different for the legal profession. The court determined that most people do not go to an attorney to determine if

Burt Kraft is a third-year professional student at Southern College of Optometry. He investigated the Supreme Court decision during his recent summer internship with ASCO.
they have a “clean bill of legal health.” Instead, attorneys are likely to be consulted to perform specific tasks. “Although the client may not know the detail involved in performing the task, he has no doubt is able to identify the service he desires at the level of generality to which advertising lends itself,” the court reasoned. Therefore, advertising would not confuse the client, but rather be of some use in determining what services he would require and what these services would cost.

The third “misleading” argument is also of great importance: advertising does not provide a satisfactory foundation on which to choose an attorney. Underlying this argument is the assumption that the public is not sophisticated enough to understand the limitations of advertising, the court noted. So it is believed that “the public is better kept in ignorance than trusted with correct but incomplete information.” It is this assumption which should lend advertising to more disclosure rather than less, the court concluded. “If the naivety of the public will cause advertising to be misleading, then it is the bar’s role to assure that the public is sufficiently informed as to enable it to place advertising in its proper perspective.” Likewise, it should be the role of the respective professional organizations to ensure the public is sufficiently informed.

The Implications for Optometry

With respect to the issues which have been presented, it would appear that advertising in optometry would not be detrimental to either the public or the optometrist except in two regards:

1. The services which are performed by an optometrist are “unique” and would be difficult to price; and
2. That advertising would serve to confuse the patient because of his inability to determine what services he would require.

To hold to the belief that all optometric services are “unique and therefore exempt from comparative pricing” may be an exaggeration of the reality. Even though there may be varied definitions of the term “eye examination,” it may well be argued that prices can be affixed to this service. With proper regulations on advertising and with adequate information displayed in the ad, the public hopefully will not be misled and in most cases, be further educated in vision care.

It might be required that a list of performed tests be included in the advertisement when “routine” or “complete” eye examinations are advertised. The more information available to the consumer, the more informed and better equipped he will be to make an intelligent decision. Thus, false or deceptive advertising may be restricted, but it should not be suppressed by closing the mouth of the speaker.

The argument that the patient is unable to determine what service he requires may fare little better. Even though the automobile owner may not know exactly what is wrong with his car, he may be able to describe the trouble to the mechanic and in return receive an estimate. In the same manner, lawyers offer prospective clients the benefit of consultation for the purpose of determining what services, if any, the client may require.

In this respect, it may be entirely possible for the layman to seek out professional optometric help and through consultation determine what services he needs performed. In addition, it is through consultation that the patient may acquire the second and third opinions which serves in his best interests.

It may appear, due to the recent decision of the Supreme Court, that laws prohibiting other professions from advertising may be found to be in violation of the First Amendment. However, this ruling does not necessarily mean there will be a mass movement toward professional advertising. What it does hold is that professional advertising can be of use to both consumer and professional, and cannot be prohibited by professional ethics or state law.

With the present trend toward consumerism in this country, it seems inevitable that some professional advertising will take its place among the merchants in the marketplace. So long as these ads are fairly regulated to protect the public from false and misleading advertisements, there should be no harm to either consumer or professional.

State Advertising Prohibitions

In January, 1976, the Bureau of Consumer Protection published in an appendix of their staff report to the Federal Trade Commission a breakdown of state advertising prohibitions for optometrists. * The Bureau classified price advertising prohibitions into three divisions: state statutes, state board regulations, and the professional associations’ codes of ethics. Roughly half of the states utilized two or more of these classifications in prohibiting price advertising.

State statutes prohibited advertising in forty-two states of which North Carolina was one. The North Carolina statute orders a complete ban on advertising of any kind that “urges the public to seek the services of any specific professional person or group of persons engaged in the field of refractions and visual care.” It also gives Board authority for reprimand, suspension, or licensure revocation for solicitation by means of newspaper, radio, TV or any other type or form of advertising.

Eighteen states prohibited price advertising by state board regulations of which Georgia was one. The Georgia State Board of Examiners prohibited as unprofessional conduct: solicitation directly or indirectly through the use of media or any means whatsoever, except by uniform cards or telephone listing.

The District of Columbia and seventeen other states by use of professional code of ethics prohibited price advertising. In the Rules of Practice portion of the D.C. Optometric Association’s Code of Ethics price advertising was explicitly prohibited.

Since the publication of this report, various states have omitted any advertising restrictions and some states are in the process of making this change. Until a more recent survey is performed, however, the breakdown as published by the Bureau of Consumer Protection is the only available information which gives an idea of the current state of affairs in regard to state advertising prohibitions for optometrists.

Health Manpower in Relation to Urban Health Care

By G. Gayle Stephens

Answers to the manpower questions, more than any others, reveal one's fundamental assumptions about the nature of human sickness and what can or ought to be done about it. The questions are particularly modern, having originated mainly in this century, but the answers reflect a broad sweep of human experience, both old and new.

One can fantasize how such questions might have been answered in former times—say the 13th or 16th centuries. If we had shared the mythological and superstitious world views of our ancestors, we would have had to provide manpower for the care of witches, the prevention of demon possession and the treatment of bad humours. There would have been a flourishing trade in relics of the saints and an agribusiness for the production of medicinal herbs.

Today, however, we are so much more certain of the true nature of disease, and our methods of treatment are so much more rational that it is much easier to plan a health care system and to appropriate the necessary resources to it. We know that what is wrong with us is heart disease, cancer, strokes and accidents, and that what we need are hospitals, operations, machines and synthetic drugs.

If some of us are so unfortunate as to be isolated from these beneficences we need access via transportation, communications and proper placement of paraprofessionals.

Lest someone conclude too soon that I am a cynical iconoclast of the genre of Illich, let me acknowledge that my roots are less revolutionary than reformist and that my intellectual debts are owed to those who represent a gentler perspective.

I am persuaded, however, that modern medicine and much of modern society are captive to a point of view about the nature of disease and cure that is hardly less erroneous in some respects than that of our medieval ancestors. Simply stated, it is the view that the basic nature of our medical illnesses is protoplasmic and that cure will be found in molecular manipulation. The whole superstructure of our medical education and medical care systems is based on this reductionistic metaphysic—a truth that has been observed and amplified by much more astute thinkers than I.

In trying to escape the undisciplined empiricism and outright quackery of most of the 19th century, in seeking to purify the profession and to establish an orthodoxy based on the natural sciences, and in committing itself to an unquestioning faith in reductionistic hypothesis about the human organism, modern medicine has travelled the well-known primrose path to seduction by a charming and fascinating but dishonorable lover, namely, a mechanistic and flawed concept of disease. Since the days of Virchow, medicine has committed its whole heart to the belief that diseases are fundamentally protoplasmic in nature and that if we could only understand the molecule we could not only conquer disease, but even death itself. Like so many brilliant and gratifying successes using this metaphysic by attaching an industrial model of medical care to it.

Along the way there have been some brilliant and gratifying successes using the man-as-a-machine model of research. But now we are finding that our single-minded commitment to this ideology has produced a monster—a monster that has at least as much power to harm as to help and that threatens to bankrupt us if we continue to worship it.

Medicine has not noticed that the tides of its intellectual fortune have gone out in the past 75 years. Now we are ground on a shoal and we are alone, because in the euphoria of our halcyon days we were guilty of overweening pride—what the theologians call hubris. Modern medicine has no philosophy of science or mind, no anthropology, no concept of history, no ethics—only power.

In comparison with physics we are in a pre-Einsteinian phase of existence. We still worship Newton. Physics was forced to deal with the dilemmas of determinism 60 years ago. In medicine it is not discussable even today. Physics also had to deal with the demonic aspects of its technology and power at the time of Hiroshima. Medicine still worships the power itself.

What is peculiarly modern are our attempts to solve the problems resulting from this metaphysic by attaching an industrial model of medical care to it. Our language gives us away—we speak of the health care industry, of providers and consumers, of services and products, of output and cost-effectiveness. We relate it to the gross national product and to employment. All that remains, we think, is to take the next logical step and manipulate this in-

---

G. Gayle Stephens, M.D., is Dean of the School of Primary Medical Care at the University of Alabama, Huntsville.
Industrial model politically and we will surely reach the utopia of health and well-being for all.

I am suggesting that this may well not turn out to be the case and that we need to take a critical look at what we are distributing, as well as the means by which we distribute it and how we pay for it. Do we really think that what we need in our cities is more and better health technology of the type we have already? Do we really think that better organization and management of this technology will make an important difference and that changing the methods of payment will somehow result in cost control?

To all who think so, I refer to the dismal example of public education in this country which in the years from 1910 to 1929 was subjected to the forced transplantation of the industrial model onto the educational administration in a massive way. The whole tragic story was recounted in detail by Raymond Callahan in 1962 in his book, Education and the Cult of Efficiency.1

During this period public school administrators and graduate schools of education were induced to adopt an alien philosophy, the concept of "scientific management," in the misguided hope that it would solve the problems of education. "Efficiency" and "cost-per-pupil" became the passwords as principals and superintendents attempted to respond to the economic demands of their local constituents with the methods of the business world.

The whole movement was symbolized by the president of the Chicago School Board who told his principals in 1927,

"You educators must understand that teaching is a business. You are salesmen. Your commodity is education. You must satisfy your customers, the taxpayers."2

Callahan summarized the consequences of this ideology for education:

"It seems in retrospect that, regardless of the motivation, the consequences for American education and American society were tragic. And when all of the strands in the story are woven together, it is clear that the essence of the tragedy was in adopting values and practices indiscriminately and applying them with little or no consideration of educational values or purposes. It was not that some of the ideas from the business world might not have been used to advantage in educational administration, but that the wholesale adoption of the basic values, as well as the techniques of the business-industrial world, was a serious mistake in an institution whose primary purpose was the education of children. Perhaps the tragedy was not inherent in the borrowing from business and industry, but only in the application. It is possible that if educators had sought 'the finest product at the lowest cost'—a dictum which is sometimes claimed to be a basic premise in American manufacturing—the results would not have been unfortunate. But the record shows that the emphasis was not at all on 'producing the finest product' but on the 'lowest cost'. In all of the efforts which were made to demonstrate efficiency, it was not evidence of the excellence of the 'product' which was presented, but data on per-pupil costs. This was so partly because of the difficulty of judging excellence but mostly because when school boards (and the American people generally) demanded efficiency, they meant 'lower costs.' This fact more than any other was responsible for the course of events in educational administration between 1910 and 1929."3

Those who know the history of public education best must surely experience a "deja vu" phenomenon when they read such books as Senator Ribicoff's The American Medical Machine, or almost any document on health and medicine that emanates from congressional committees.3

What are the fundamental elements of the business-industrial model in medical care? As in doctrinaire Calvinistic theology, once the assumption of the absolute sovereignty of God is accepted, everything else follows in airtight logical progression; so in medicine, once the assumptions that disease is protoplasmic and medical care is a product are accepted, the rest is self-evident:

1. There is diversity of tasks,
2. These can be arranged hierarchically according to complexity and risk (open heart surgery at the top and triage at the bottom);
3. Tasks can be delegated to co-professionals, technicians and assistants, and
4. Cost-effectiveness and efficiency can be measured and controlled.

There is no doubt that this model has been adapted successfully in certain settings. Military medicine is an obvious example. Disasters, mass casualties and volume services to a young and basically healthy population can be managed this way. Hospitals with a commitment to high levels of technology are other settings. But is this the best model for general medical care to an entire population containing all age groups and a wide range of social and economic groups?

David Rutstein was among the first to describe what he called "the paradox of modern medicine"—the fact that we have reached a point of diminishing returns in the unrestrained application of technology to medicine. More and better technology does not necessarily result in a proportionate increase in the health and well-being of the population as a whole as measured by life expectancy, mortality rates and morbidity from chronic diseases.4
In the past decade many observers have identified the lack of primary medical care as one of the most important factors in humanizing medical care and in controlling the costs. The problem is that most of these observers have assumed that primary care can be made technological too and that an extension of the business model into primary care is also appropriate and desirable. There is a tendency to see primary care as merely adjunctive to the real work of medicine which is performed in hospitals. This belies a low view of primary care which has made it unattractive to generations of physicians.

There are a number of characteristics of primary medical care that are problematic for the business-industrial model:

1. It is more service than product oriented. This means that the family physician deals in services more than products. He/she is more concerned with management than with treatment, with caring more than curing. There is less use of technology and on the whole less operative intervention. One of the tasks of the family physician is to protect the patient from tests, procedures or treatments which are not necessary. Decisions about necessity involve estimates of risk, cost and degree of urgency in relation to the patient’s personality traits and social situation.
2. The tasks are more undifferentiated and overlapping, being fundamentally communicative in nature.
3. The level of uncertainty is inherently higher (as opposed to ignorance).
4. It is more affective and relational.
5. Patients exhibit a higher degree of autonomy in the primary care setting. They are mobile, less depersonalized, less dependent, less compliant and set more limits as to what they will allow.
6. Accountability is more focused and identifiable. It cannot be so easily diffused as in the hospital.

What does all this imply for medical manpower and for the education and training of the health professionals who provide primary medical care? First, it requires that a higher value be placed on the generalist role. The sine qua non of primary care is that it aims at the provision of medical services to unselected patients with unselected problems. This clearly requires a greater breadth of education and skills for those who function at the first contact level.

Second, it requires that the commonest problems be managed definitively at the technologically least complex level that is appropriate—which usually means the ambulatory or non-institutional setting.

Third, it places a premium on the enrichment of social and personal services such as counseling, patient education, patient advocacy and mental health services.

Fourth, it requires a critical knowl-edge of all consultive and referral resources, so they can be utilized with discrimination. As a matter of fact, it places a higher value on consultation than on referral. One of the very im-

References
2. Quoted in Callahan, p. 231.
While in his fourth professional year at Pennsylvania College of Optometry, Dr. Monacell participated in a three-month clinical externship in primary care at the Joseph C. Wilson Health Center in Rochester, New York. During this experience, Dr. Monacell felt the need to express the disparity he encountered between his educational experience and the clinical experience at the health center. This paper presents his suggestions and recommendations for improving optometric education from the standpoint of a recent graduate.

It is the purpose of this paper to explain the concept of primary care from within optometry and to stimulate the optometric educational community to gear their educational institutions toward the goal of primary care optometry. This paper is written from one’s personal position both as a recent graduate and as a new primary care practitioner.

It is imperative, at this strategic point in national health care evaluation, that students in optometric colleges realize their options to pursue the primary care specialty. Truly, the acceptance of primary care responsibility will place them and their patients within the most efficient framework of health care offered to date.

For three months, this author participated in an externship program at the Joseph C. Wilson Health Center in Rochester, New York. This facility provides primary care via the combination of a multidisciplinary provider group, Medical Group of the Genesee Valley Group Health Association; an administrative body, Genesee Valley Group Health Association (a subsidiary corporation of Blue Cross-Blue Shield of Rochester) and a central facility, the Joseph C. Wilson Health Center. The philosophy of eye care existing in the Eye Sciences department revolves around the central themes of availability, responsibility, coordination, and comprehensiveness of care.

As primary care providers in eye care, students participate in the responsibility and accountability for each member visiting Eye Services. Adequate management and treatment of a wide variety of disease states is an integral part of the total eye care scheme, although management of disease is only a part of the full scope of primary care. This is an important point for the optometric community to realize, because, more often than not, pathological exposure and treatment are equated with primary eye care. This assumption is incorrect and indicates a misunder-
standing of primary care optometry.

As a consequence of the above externship, I believe the educational responsibilities of optometry must be reviewed and readjusted. When one alludes to the type of eye care at the Wilson Center, it becomes evident that optometry, as it exists today, is in an optimum position to function in health care delivery systems as a primary care specialty. Just as specialties develop in pediatrics, existing as full-time child health care providers, primary care optometry provides the potential for growth into a comprehensive eye care. This type of care could filter down into the private practice mode, but initially, multidisciplinary, group settings are the most fertile areas in which to initiate primary care optometry. Education of students toward this goal is essential.

It is also important that primary care optometry exist as a specialty because of the disparity that exists within the profession between the new generation optometrist’s abilities and interests versus the practice methods of the more traditional optometric community.

Primary care optometry is best initiated in the multidisciplinary setting, where exposure to large numbers of patients with many various needs and demands is possible. These greater demands can be met through technology and methodology of the multidisciplinary practice. This ability to be able to answer to many various eye care needs thrusts optometry into an operational mode which bases itself distinctly upon the tenets of primary care.

This multidisciplinary approach, together with an educational response toward high primary care optometrist production, will aid in expanding primary care into the private practice mode of health care delivery. Although some primary care parameters can never truly be followed within a private setting because of their logistical nature, an attempt can and should be made to come close to true primary care methods and modes.

This attempt can be accomplished by pursuing full responsibility, coordination, and comprehensiveness of care in the private sector of optometric vision care. These goals can be attained by continuous management of a suspect patient with an ever expanding battery of tests which monitors the patient’s condition, while the primary care optometrist professionally judges when and if a treatment course of action should be incorporated into the management regime.

At that time, if the indicated course of treatment requires secondary level skills, such as optometric, medical, psychological or sociological, then specialist-consultant services in private practice or a community hospital setting can be pursued. A specialist is consulted and requested to move toward the management of the patient and to initiate a course of action which will alleviate the sight-threatening condition. By this method, both primary and secondary levels of eye care have now functioned at their highest efficiency and have served the patient’s needs most thoroughly.

A reversion back to primary levels of care will then insure continued monitoring and evaluation of the controlled patient. This primary method of care can be repeated numerous times throughout the population under care, with no disruption to patient or system. This above scheme should, in fact, be the operational mode for any primary care optometric practice and is feasible with the acceptance of full responsibility by the provider.

An important factor that must be realized at this time is that the actual implementation of functioning primary care optometrists must precede, for reasons of credibility, the financial funding of primary care programs. This point becomes strategically important because much money can be pumped into a solidly based program, but without people in the field actually practicing primary care optometry, there exists the distinct possibility of primary care optometric approaches continually surfacing without any solid proof of its potential for sound health services or cost-effectivity.

It is rather easy to point out the shortcomings of any system, but, without constructive recommendations for improvements, such an analysis would be without merit.

As we look at optometric education, it is essential that improvements be built upon the already solid framework of the educational curriculum existing today. With a primary optometric goal always in mind, an extensive clinical, pharmacological course foundation is required. This means a working, treatment-oriented course dealing with all phases of ocular pathology. In addition to this, pathology should be taught not as an informational course where the observation and diagnosis of each ocular pathology are ends rather than means. The observation and diagnosis of each sight-threatening
condition are best taught along with the treatment, suggested course of management, and recommendation phases towards the patient's chief complaint.

In order for primary care concepts to exist in the optometric educational curriculum, an optometrically responsive approach, i.e., management of the pathology itself, should be included in the curriculum. This entails complete responsibility for the patient, not necessarily for sophisticated therapeutic courses, but a working knowledge of when referral to secondary levels becomes necessary with complete comfort in definitive and differential diagnosis. Legally, optometry holds no responsibility for such situations today, but this is not to say that this recognized inconsistency in efficient eye care delivery will continue.

A second recommendation is stimulation of students by optometric faculty toward primary care optometry. This adaptations will arrive in due time, but there should exist the availability of guidance from optometric clinic faculty especially toward excellence in patient handling and responsibility. Students currently, after spending four years in optometry school, go out into practice with little feeling for the patient. "What do I have to do for the patient?" seems more important than, "What does the patient need?" Data gathering, which is in fact no more than a technical skill, seems to decrease the direction toward alleviation of the patient's problems. A true fulfillment of each patient's needs should be the endpoint of each optometric encounter.

A third area in need of improvement is in the realm of the "clinical model." By this, I refer to a clinical rotation by the student with clinic faculty, studying each patient, arriving at diagnosis and treatment, and accomplishing all of this under the guidance of a competent, excited, interested instructor who is willing to spend time with each student, challenging their thoughts and ideas. In retrospect, it would have been the greatest experience if we had started in our first year of optometric study, a program whereby each ten students were assigned to one clinician who would be responsible for producing, at the end of the second professional year, a proficient technical optometrist, who now could be honed into a capable optometric clinician. As the system stands presently, students are exposed to dedicated clinic staff but never receive the criticism, challenge and attitudinal drive that are so important to the production of an excellent clinical scientist.

Evaluation of clinical expertise is an area which needs revision. The student's clinical experience consists of a series of patient encounters serving as a weak teaching tool devoid of any substantial challenge for the student clinician. It is essential that each patient encounter be approached from the patient's need standpoint, rather than a mechanical, functional approach. It is clear that testing a patient for data's sake rather than for the patient's sake is unfair, inefficient and furthest from the primary care approach. Number of patients means nothing, relative to a full experience with each patient.

It is the essence of the best primary care practitioner to zero in immediately onto the patient's chief complaint and needs, to perform only those tests necessary for a complete evaluation geared toward the patient's needs and to follow up with a management approach which alleviates the problem or moves the care to a secondary level. Utilizing this method in teaching clinics may yield one examination of fifteen minutes' duration and another examination taking an hour. It has to be instilled in the clinician that each patient is a person with a specific need and not a set of findings.

I am sure that this argument, if you will, is nothing extravagantly new and startling to the practicing optometrist. This is the point: teaching clinics should be the foundation of the patient-centered approach, not the new practitioner's office.

Therefore, with the above thoughts in mind, I would recommend: strict supervision and testing to be carried on in the clinic experience of the student, both in front of the patient and in subsequent discussion; on the spot case analysis arriving at a definitive diagnosis, along with an ability in differential diagnosis; ongoing evaluation every four weeks, in private session with the major clinic chief, reevaluating all of the student clinician's strengths and weaknesses; and exposure to various types of patients, delineated by age, sex, race and background from the social standpoint, and various eye care types from the primary optometric standpoint.

These four very important methods in optometric clinic teaching cost nothing to initiate but can produce a more "people oriented" provider with a sound basis upon which to build more sophisticated technical skills essential to the primary care optometrist.

Journal of Optometric Education / 21

Fall, 1977
An Analysis of Education in the Health Professions

By John G. Classé

In comparing optometric education statistics with the other health care professions, many favorable similarities—as well as predictable differences—are apparent, as the accompanying chart indicates. Some of the key points deserve further analysis which should be the subject of further research.

Optometry remains the profession most devoted to general practice, with 95% of its practitioners so rated. Contrast this with medicine, which identifies a meager 33% in general practice, and it is easy to understand why contemporary health legislation (such as the Health Manpower Act of 1975) stresses the need for primary care physicians. Actually, in this comparison, medicine is the only health care profession not composed primarily of general practitioners.

Optometry trails only medicine and dentistry in the number of schools graduating students, and, along with osteopathy, is expanding rapidly. The number of colleges of osteopathic medicine has virtually doubled since 1970, and optometry has added its first new colleges since the mid-fifties, including one located in an academic health center. Optometry also ranks third behind medicine and dentistry in number of graduates, but many more must be produced in forthcoming years (over the current 865 graduated annually) to satisfy the increasing health manpower needs of the 1980s.

The number of applicants to optometry schools compares favorably with that of the other health professions, with the average for all five professions being three applicants for each entering student. This means that each year there are between fifty and sixty thousand students that are denied an opportunity to enroll in a doctoral degree program in a health profession, a staggering statistic. On the other hand, the five health professions are currently producing approximately 18,000 to 19,000 graduates annually, with the total expected to rise yearly due to the expansion in size of entering classes.

One area in which optometry lags behind the other health professions is in the years of preprofessional education required of its entering students. All other professions report that well over 80% of their entering students have at least four years of undergraduate education, whereas, in 1975, only 59% of first-year optometry students had had four years of undergraduate work. It is also interesting to note that all of the health professions now require their applicants to take a standardized aptitude examination as part of the admissions process.

Examining the curricula of the various professional schools reveals that emphasis on the basic sciences phase of training has increased in schools of optometry, osteopathic medicine, and podiatry. Optometry also shares, with dentistry, credit for the innovative transfer of the clinical phase of training—from the third and fourth years exclusively—into the earlier years of the curriculum. And optometry shares with its sister health professions the desire to have increasingly greater portions of clinical training conducted at locations remote from the school itself.

Underlying these changes is the belief of the health professions that interdisciplinary education will receive greater and greater emphasis in the future. Educating all the professional students together will enable them to be better prepared to practice together in the interdisciplinary settings of tomorrow.

One interesting aspect of professional education that is not often discussed is accreditation. Since the average period between accrediting inspections is five to six years, there are approximately one-fifth to one-sixth of all the health profession schools being accredited in any given year, a practice which surely involves a large annual investment of money and manpower.

Indeed, money is the overwhelming concern of all the professions, for each of them shares the need for an increasingly larger and increasingly more stable financial base upon which to develop and sustain future programs. And the future promises a health care delivery system that is ever more complicated, as federal laws and state practice acts become more complex and more pervasive.

Finally, it is satisfying to note that optometry leads all professions in putting its graduates "into the field" immediately upon completion of the four-year professional course of studies. This fact, plus the acknowledged superiority in geographical distribution of O.D.'s outside large urban areas, demonstrates why optometrists are considered by many health care planners to be the primary entry point for eye care service in the United States.

References
2. H.R.5546.

Also used in reference:
HEALTH PROFESSIONS AND THEIR EDUCATIONAL PROGRAMS

<table>
<thead>
<tr>
<th>I. Professional Profile</th>
<th>Dentistry</th>
<th>Medicine</th>
<th>Optometry</th>
<th>Osteopathic Medicine</th>
<th>Podiatry</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Number of active professionals</td>
<td>112,020</td>
<td>330,000</td>
<td>19,271</td>
<td>15,000</td>
<td>7,120</td>
</tr>
<tr>
<td>B. Percent in general practice</td>
<td>89%</td>
<td>33%</td>
<td>95%</td>
<td>75%</td>
<td>83%</td>
</tr>
</tbody>
</table>

| II. Profile of Educational Institutions | | | | | |
| A. Number of schools | 59 | 114 | 13 | 9 | 6 |
| Number of public schools | 35 | 65 | 7 | 4 | 1 |
| Number of private schools | 24 | 49 | 6 | 5 | 5 |
| B. Schools developing | 1 | 5 | 5 | 4 | 0 |
| C. Lone standing schools | 0 | 14 | 5 | 7 | 5 |
| D. Number of applicants | 14,970 | 42,051 | 3,279 | 5,500 | 1,500 |
| E. Number of entering students | 5,555 | 15,295 | 1,024 | 1,032 | 651 |
| F. Total graduates | 4,969 | 11,613 | 865 | 695 | 350 |
| G. Number of applicants per entering student | 2.6 | 2.7 | 3.2 | 5.3 | 2.3 |

| III. Admission Requirements | | | | | |
| A. Percent of students with 4 years of college work | 87% | 88% | 59% | 95% | 95% |
| B. Standardized Aptitude Exam required of all students | Yes | Yes | Yes | Yes | Yes |

| IV. Characteristics of the Curriculum | | | | | |
| A. Number of years of schooling | 4 yrs. | 149 weeks | 4 yrs. | 4 yrs. | 4 yrs. |
| B. Number of summers of schooling | 2 | 1-2 | | | |
| C. Percent of curriculum in the basic sciences | | | | | |
| 1st year | 80% | 80-100% | 85% | 80% | 80% |
| 2nd year | 25% | 50-60% | 60% | 50% | 60% |
| 3rd year | 15% | 0 | 40% | 0 | 0 |
| 4th year | 1% | 0 | 0 | 0 | 0 |
| D. Percent of curriculum in the pre-clinical phase | | | | | |
| 1st year | 15% | 0-20% | 5% | 10% | 19% |
| 2nd year | 60% | 40-60% | 20% | 20% | 30% |
| 3rd year | 2% | 0 | 0 | 0 | 16% |
| 4th year | 0 | 0 | 0 | 0 | 7% |
| E. Percent of curriculum in the clinical phase | | | | | |
| 1st year | 3% | 0 | 5% | 0 | 0% |
| 2nd year | 5% | 10-20% | 10% | 20% | 8% |
| 3rd year | 75% | 60-100% | 40% | 100% | 78% |
| 4th year | 90% | 60-100% | 80% | 100% | 92% |

| V. Accreditation | | | | | |
| A. Frequency in years | 7 | 1-7 | 5 | 5-8 | 5 |

| VI. Decisions of Graduates: | | | | | |
| Percent Entering | | | | | |
| Specialty training | 10% | 95% | Limited | 25% | 6% |
| Internship | 11% | 100% | Limited | 97% | 47% |
| Private practice | 52% | 0 | 80-90% | 0 | 39% |
| Military | 24% | 10% | | 10% | 8% |
| Other | 3% | | | 5% | |

1 = 1975-1976
2 = 1974-1975
3 = 1973-1974
Blanks indicate information not available.
Source: Adapted from Synopsis of Education for the Health Professions, The Association for Academic Health Centers, 1976.
Several weeks ago, several dozen optometrists, psychologists, physiologists, pharmacologists and biologists convened on the 15th floor of 100 East 24th Street in New York City and, collectively, removed their hard hats. The Department of Basic Sciences was installed and quite literally, the move was over. For the first time since its founding in 1971, the State University of New York’s State College of Optometry was housed under one roof. Symbolically, the end of the move signaled the emergence of a new era for optometry in the “empire State,” as New York is known.

Over the past several years, there has been growing agreement that the college is the future of the profession in the state. Now, for the first time, with the move to the new facilities completed, the college is finally able to respond fully to that challenge. The excitement today lies in determining how best to utilize the tremendous new resources which have become available.

To illustrate the dimensions of the expansion that has taken place, consider the fact that the college’s new modification laboratory on the fifth floor of the new building is larger than its entire former contact lens clinic. Where before everyone seemed always to be working in each other’s hip pocket, today there is room to explore and grow, room for faculty, staff and students alike to initiate and investigate. At the present time, the college occupies ten floors of a 20 story building in midtown Manhattan. Reconstruction of an additional three floors is expected by April, 1978. Today, the college’s physical plant, which contains 150,000 gross feet of internal space, features over 60 primary care and contact lens examination rooms, a comprehensive visual science laboratory and learning resources center, over a dozen specialized research laboratories and a floor devoted entirely to ocular pathology and special testing. When completed, the new quarters will offer some of the most advanced facilities in the country for the education and training of the modern optometrist as a clinician scientist. To those who fought, and won, the hard fight to establish the college, these are gratifying days.

Looking back, the drive to establish SUNY’s State College of Optometry actually started a generation ago, in 1956, when Columbia University closed down its optometry program. In an effort to provide and maintain an academic and clinical resource for the profession in the metropolitan area, a handful of Columbia educated optometrists joined together to form the Optometric Center of New York. Shortly thereafter, the center Board hired a young Brooklyn-born optometrist, newly out of the army, to direct its operations. His name was Alden N. Hafner. The rest, as they say, is history.

From a walk-up loft in the garment district, the center grew and eventually merged its programs into the college in 1975. Today, the clinical operations of the University Optometric Center, as it is now known, are second to none. Averaging 100,000 patient visits a year, it is the largest non-profit vision care clinic in the country. With its enormous resources and diversified patient population, the center provides a remarkable training ground for the students at the college. Under close clinical supervision, the students, beginning in their second year, provide visual care to a patient roster that ranges from male prison inmates to Chinese school children. Dr. D. Leonard Werner, Chairman of the Department of Clinical Optometric Sciences, noted that “by

Sheila P. Worthington is Assistant to the President for College Relations at the State College of Optometry, SUNY.
the end of the fourth professional year, our students have completed more than 1400 hours of clinical exposure at a student/faculty ratio of 3:1.”

The college, through its clinical facility, supervises seven satellite clinic operations in the disadvantaged sections of the city and provides comprehensive vision services for 37 nursing homes throughout New York. As an adjunct to its own clinical teaching program, the college, each summer, sponsors an eight-week clinical internship program for selected fourth-year students from other schools and colleges of optometry in the northeast.

Allied with this excellence in clinical education is the center’s administrative structure, which, from its earliest days, was primarily concerned with the proper delivery of patient care. From the beginning, the college and center professional staff have been imbued with a very real, tangible social concern for the patient population they serve.

Interestingly, this regard for the patient and his rights has had a significant influence on the development of the academic structure of the institution. It is quickly apparent after even a cursory skimming of the college catalogue that, in addition to the expected scientific basics, public service as well as humanistic and behavioral endeavors in the health care disciplines are prominent in the present thrusts of the academic program.

At the present time, SUNY’s State College of Optometry has the most comprehensive public health curriculum component of any school of optometry in the United States or Canada. Its public and community health courses exceed in number those offered at any of the four colleges of medicine maintained by the state. Of greater importance, however, is the caliber of education offered by the institution. For the past ten years, optometric education has been in a state of evolution. Nowhere has this been more evident than in the teaching of the basic sciences. As the profession, in general, has moved in the direction of the use of diagnostic and possibly, therapeutic, drugs, the colleges have been increasingly called upon to prepare their students in the use and effect of drugs upon the ocular system.

At SUNY, this has led to an almost constant, some say chronic, curriculum review in the Basic Sciences. Perhaps no other area of the college has seen such change over the past six years. The department has been substantially restructured, and there is, today, a recognized full-time commitment to the study of the non-visual human system both in terms of personnel and resources.

Overall, the end result has been to divide the department into what is lightly called the “basic, basic sciences” and the “basics.” First-year biochemistry, physiology and anatomy have all been broadened and strengthened in order to give the student an exceptionally solid scientific foundation. It is felt this groundwork is essential if today’s student is to be expected to master the demands placed upon him by pathology and pharmacology. Dr. Jerry Rapp, Chairman of the Department of Basic Sciences, unequivocally states that his department’s course work is easily equivalent to that taught in any of the nation’s better medical schools.

Less obvious, but of equal import, are the advances that have been made in recent years in the study of basic optometric sciences. Unquestionably, this field is the intellectual structure upon which the entire profession is predicated. And as such, its basics, the teaching of the acquisition and processing of visual information, remain relatively constant. However, here too, the impact of constantly increasing new knowledge has led to significant changes in teaching. It is a fact that “what is true today may not be true tomorrow,” and as a consequence, textbooks today can’t keep up with the surge of new knowledge that has emerged. To cope, the faculty relies heavily upon the library’s extensive acquisition program and, increasingly, transmits information through regular distribution of original papers. Here, perhaps more than in any other department of the college, the faculty has evolved a flexible and fluid style of teaching that seems likely to remain the mode.

Flexibility and academic fluidity are important, too, in the work of the college’s Department of Behavioral Science and Public Health. Here, the optometric student body is rigorously exposed to a comprehensive analysis of social, economic and political influences on health care as provided by both the voluntary and proprietary sectors. By his fourth and final professional year, the optometric student is urged, indeed expected, to question the status quo, the social, legal, ethical, professional and scientific obligations of optometry as a licensed discipline.

It is a matter of pride at the college that the students are exposed to the most rigorous program in Behavioral Science offered at any school or college of optometry in the country. Dr. Michael Heiberger, Director of Student Affairs and Services, considers this academic emphasis on behavioral and vision development a very real plus in discussing the college with prospective applicants. It makes SUNY unique. It also gives entering students the opportunity to branch out into new areas of scientific interest and to broaden their intellectual and psychological awareness. As Dr. Lowell E. Bellin, New York’s distinguished former Commissioner of Health noted in his commencement address last June, “The optometrist of the future will be called upon to deal with the whole person, not just a set of visual organs.”

In line with this thinking, it is also a tenet of the college’s educational thrust that the optometrist of the future will increasingly be called upon to interact and develop adequate communication skills with other members of the professional health team. As an example of the interdisciplinary approach which is encouraged within the clinic institution, students are exposed to the services and efforts of the clinic’s Department of Social Services. Special seminars and sessions are offered in which optometry students work with graduate social work students (from New York
University Graduate School of Social Work), in coordinating patient care among participating disciplines, as well as external providers (e.g., hospital, health centers, private practitioners). In addition, a Learning Disabilities Unit has been developed within the clinic's Vision Training Department to provide an interdisciplinary approach to learning problems. Three doctoral candidates from New York University's clinical psychology program are participating in this project. Besides contributing to subject content matter, it is believed that the students will greatly benefit from this exposure and training in interdisciplinary communication and cooperation.

As Dr. Werner observed some time back, "There is no question but that as examinations and equipment become automated and grow increasingly sophisticated in design, the optometrist is going to be called upon to interpret the findings to an entire community of health care providers: neurologists, psychologists, physiologists, ophthalmologists and educators."

In recent months, there have been discussions and plans at the college to begin interdisciplinary clinical programs within the framework of other clinical care programs. The administration anticipates cooperative arrangements with the New York University College of Dentistry, New York College of Podiatric Medicine, and one of the medical schools in the city. These courses will emphasize the necessary integration of various disciplines in the provision of eye care services and will help establish the optometrist as an effective member of the primary care health team.

Dr. Robert Rosenberg, Chairman of the Department of Basic Optometric Sciences, comments, "Increasingly, the optometrist is the person who knows the kind of information that is needed in order to make a diagnosis, and where necessary, an appropriate referral. He also knows enough to become an intelligent recipient of interdisciplinary referral."

As a practical matter, the truth of these separate but concurring observations is reflected in the increasing attention being paid to the college's graduate program and to the special residencies in vision training and ocular pathology and special testing. For several years, the college has offered a program in visual science leading to the master of science (M.S.) degree. More recently, the need for graduates, combined with the special educational strengths of the college, led to the proposal and development of a program in vision science leading to the degree of doctor of philosophy (Ph.D.).

To date, there are only five Ph.D. programs in vision science in the country. The college's new program will offer the first such degree at a college of optometry in the eastern United States. As such, it represents the latest in a series of educational innovations designed to fulfill the challenges of optometric education in the 1970s and '80s. As such, too, it represents the latest manifestation of the college's philosophy: "The professional curriculum at the State College of Optometry is designed to provide high quality didactic laboratory and clinical programs from which the modern optometrist can gain the knowledge and skills necessary to improve and enhance visual performance. The challenges of health care delivery in the immediate future will demand that newly graduating health professionals be able to utilize thoroughly the latest advances in scientific knowledge and technology and in modes of delivery in order to reach an increasing number of people with the best possible care."

In short, the challenge ahead will be to understand, to interpret, to communicate and to participate. As Dr. Alden N. Haffner, President of the institution, expresses it, "The main thrust of the College is, and will continue to be, to produce optometrists who go out into the community and serve."
have done field work. That field work is not simply observing but acting in the employ, unpaid if you will, but the employ of a health related institution.

The Fourth Ward Clinic has served as one of these institutions. Students have come to the clinic, have functioned in specific jobs with specific responsibilities in that clinic, have learned how the clinic operates, have witnessed its day-to-day operation, have witnessed the successes of the clinic and have witnessed its failures—the mistakes of the clinic. I cannot emphasize this enough. They have witnessed the mistakes that have been made in that clinic. I am the Director of the Fourth Ward Clinic. Many of these students are mine. Many of the mistakes that have been made are mine; that is, I expose students to my own mistakes.

I must emphasize that students are an unforgiving lot—they fail to see why mistakes can happen. Part of teaching, then, is to try to explain how such gross errors could have been made. None of this is calculated to maintain the aura of invincibility, of intellectual acuity which professors are fond of parading in front of their students. If one is to go into the field as an academic, he must be prepared to look the fool. He will be at times. He will be the subject of criticism at times. He will be the precipitator of public failure at times. Unless he can stand this image of himself known by his students and others, then he is not strong enough for this business and should stay out of it. In the field we have no place for those who first and foremost must guard their egos.

Simply put, the social science practitioner must somehow find the courage to do—not the courage to succeed, but to risk, to try, to fail, to be wrong, to be embarrassed or embarrassing, to cause problems for himself, herself and others, to have the wisdom to develop action-oriented knowledge and the courage to accept responsibility for its application by being part of that process. Understand, what is not being suggested is the model where the person of knowledge feeds the person of action; what is urged is the fusion of the two. That there may be few sociologists, social scientists or others sufficiently adept to fulfill this role does not negate the principle. Few are there who are first-rate library scholars yet we maintain the ideal and seek to train students to approximate it.

This is, then, no clarion call for the overthrow of the conventional academic role. It is simply an effort to seek expansion of that role so that academics will feel themselves free to practice their craft in this manner. For academics to do so, they must be encouraged. Few are there who will go forth without the encouragement of their host institutions. Universities, I then submit, must now encourage those who have been active in this world, who have sought to understand by doing and analyzing what has been done by them—universities must now encourage these persons to do more and must speak to the timid among us and say, “You, too, may go out into the world and analyze what is.” Universities themselves must finally make the commitment to act in their own communities, be they cities, counties or states; universities must accept responsibility for actions in the community to remedy change.

There is, finally, no reason why the University of Houston or other health related institutions in this city should support the Fourth Ward Clinic—there is no mandate to do so. Neither, I submit, is there justifiable reason why these institutions have not supported the Fourth Ward Clinic. We sit in the poorest section of Harris County, the fourth poorest in the Houston SMSA. All through educational institutions, poverty is a favorite subject. We have it captive in our clinic, day after day. The poor, the fairly poor, the very poor, and the desperately poor. The young come, the old come, the hurt come, the psychological casualties come—all of them poor. We have medical problems, we have health problems, we have social problems.

There is no reason why that striving institution, the University of Houston, should not be involved in that clinic. There is no reason why that vast principalcy, the University of Texas Health Sciences Center, should not be involved in the Fourth Ward Clinic, involved in every phase of that Clinic. There is, finally, no reason why the health related institutions did not themselves place that clinic there, did not themselves enter into the health delivery system of Houston. It remained for private individuals, many of them from the wealthier churches of this city, to do so. And it remained, at the University of Houston, for the School of Social Work to take the lead in joining with the Fourth Ward Health Clinic in serving its clients.

Day after day we may not approvingly at the canard that the child with a bad heart who has to walk up three flights of stairs is, in fact, beset by two health problems—and that a good health clinic, a sensible health clinic, a reasonable health clinic will attack these problems. We may nod, we may find it reasonable, and yet, the health institutions of this city who knew its truth before it was ever said, first, failed to attack the problem and, second, showed little concern with supporting the agency which did attack it.

There is no issue in “university involvement in community health.” Who among the faculty knows about community health? Then they should be involved in it—in its propagation, in its realization. They should be there, and this University should be providing all of their knowledge in this way.

That universities still see as problems what should be seen as opportunities well indicates how far we have yet to go.
The Association of Schools and Colleges of Optometry (ASCO) represents the professional programs of optometric education in the United States and Canada. ASCO is a non-profit, tax-exempt professional educational association with national headquarters in Washington, D.C.

**BOARD OF DIRECTORS**

Dr. Alfred A. Rosenbloom, President
Illinois College of Optometry
Chicago, Illinois

Dr. Gordon G. Heath, Dean
Indiana University
School of Optometry
Bloomington, Indiana

Dr. Richard L. Hopping, President
Southern California College of Optometry
Fullerton, California

Dr. William R. Baldwin, President
The New England College of Optometry
Boston, Massachusetts

Dr. Willard Bleything, Dean
Pacific University
College of Optometry
Forest Grove, Oregon

Dr. Norman E. Wallis, President
Pennsylvania College of Optometry
Philadelphia, Pennsylvania

Dr. Spurgeon B. Eure, President
Southern College of Optometry
Memphis, Tennessee

Dr. Alden N. Haffner, President
State University of New York
College of Optometry
New York, New York

Dr. Frederick W. Hebbard, Dean
Ohio State University
College of Optometry
Columbus, Ohio

Dr. Henry B. Peters, Dean
University of Alabama
School of Optometry
Birmingham, Alabama

Dr. Monroe J. Hirsch, Dean
University of California
School of Optometry
Berkeley, California

Dr. Chester H. Pheiffer, Dean
University of Houston
College of Optometry
Houston, Texas

Dr. Merrill E. Woodruff, Director
University of Waterloo
School of Optometry
Waterloo, Ontario, Canada

**Editorial Council,**
*Journal of Optometric Education*

*Chairman*
Chester H. Pheiffer, O.D., Ph.D.
University of Houston's College of Optometry

Irvin M. Borish, O.D., L.L.D.
School of Optometry
Indiana University

Frank Brazelton, O.D.
Southern California College of Optometry

Vonne Porter, Ph.D.
Southern College of Optometry

Norman E. Wallis, Ph.D., O.D. (ex officio)
Pennsylvania College of Optometry

*President*
Alden N. Haffner, O.D., Ph.D.
President, State University of New York, College of Optometry

*Vice-President*
Alfred A. Rosenbloom, M.A., O.D.
President, Illinois College of Optometry

*Secretary-Treasurer*
Frederick W. Hebbard, O.D., Ph.D.
Dean, Ohio State University
College of Optometry
LIQUIFILM®
WETTING SOLUTION
DOES MORE
FOR YOUR CONTACT LENS PATIENTS.


WHY LIQUIFILM? A unique plastic polymer, Liquifilm (polyvinyl alcohol) has outstanding lubricating, wetting, and adhesive properties. It forms a tenacious, protective film that resists wash-off, does not blur vision, and does not interfere with healing of injured corneal epithelium. These characteristics have made Liquifilm one of the most widely used vehicles for ocular medications and artificial tears.

CONDITIONS THE LENS. The polyvinyl alcohol molecule has both lipophilic and hydrophilic properties that permit complete and long-lasting wetting of the hydrophobic lens surface. While the lipophilic groups (b) bond themselves to the lens surface (4), the hydrophilic groups (a) position themselves so they are exposed to the aqueous ocular environment (2).

CUSHIONS THE LENS. The altered lens surface is now compatible with the natural tears, allowing them to flow freely over and around the lens. Thus, a continuous buffer zone is maintained at two critical comfort areas. Between the palpebral conjunctiva of the upper lid and the lens. Between the cornea and the lens.

BUT THAT'S JUST THE START. Liquifilm Wetting Solution is formulated to meet the needs of the eye as well as the contact lens. Isotonic so the delicate osmotic balance of corneal cells is not disturbed. A pH of 7.0 so it can adjust quickly and comfortably to the ocular environment. Microfiltered to remove any potentially irritating particles. And finally, 180 quality control inspections ensure the sterility and quality of Liquifilm Wetting Solution.

LIQUIFILM®
WETTING SOLUTION
LUBRICATES, PROTECTS, CONDITIONS, CUSHIONS, AND COMFORTS.

Pharmaceuticals
Irvine, California, U.S.A./Pointe Claire, P.Q., Canada

©1976 Allergan Pharmaceuticals

ASSOCIATION OF SCHOOLS
AND COLLEGES OF OPTOMETRY
1730 M Street, N.W., Suite 210
Washington, D.C. 20036