



AMERICAN INSTITUTE OF THE HISTORY OF PHARMACY

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Evolution of Practice: From Compounder to Pharmaceutical Care

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The History of American Pharmacy

Spring 2016

Evolution of American Pharmacy Practice

- Virtually every aspect of American pharmacy practice has changed over the last 200 years
 - Nature of the practice site
 - Education and scope of practice of pharmacists
 - Role of the pharmacist in the health care team
 - Financing issues
 - Role of the government
 - Patient expectations

The Corner Drugstore

- ◉ Independent pharmacies dominated
- ◉ Part of Americana
- ◉ Era of the “soda fountain” pharmacy
- ◉ Local pharmacist known as “doc”

The Drugstore Soda Fountain

- The soda fountain transformed the apothecary shop into a drug store.
- 1888: Pharmacist Jacob Baur established the Liquid Carbonic Company after having perfected carbon dioxide tanks; by 1900, he produced and sold soda fountains with an instruction and recipe manual.
- Mass-produced syrups included Coca-Cola, Ward's Orange Crush, Cherry Smash, Orange Julep, Hires' Root Beer, and Dr. Pepper, which became favorites in American drugstores.

Compounder

- American pharmacy practice from its earliest days gained its stature through the manufacturing and compounding of drugs.
- By the mid-19th century, there was a battle within the profession between those who believed the essence of pharmacy practice lay in the preparation of medicines and an increasing number of apothecaries who were purchasing prepared medicines from manufacturers.

Dispenser

- As more and more drug products became commercially available, the role of the community pharmacist began to shift toward being a dispenser of manufactured drug products.
- Products could be manufactured less expensively and more reliably by the pharmaceutical industry.
- The pharmaceutical industry became the source of new, synthetic drugs such as aspirin.

Golden Age of the American Drugstore

- From the Civil War to WWII, the average community pharmacy filled 6-12 prescriptions per day, relying on the front store to remain profitable; prescription areas were moved to the back of stores, often into an elevated, screened-off area.
- After WWII, the prescription business became more profitable with the introduction of new drugs, especially antibiotics.

Dispenser

- From 1930 to 1950, the number of compounded drugs dropped dramatically.
- The advent of new manufactured drugs shifted the major source of revenue from the front store to the back store (prescriptions).
- In the 1950s and 1960s, with the growth of prescribing, community pharmacies shifted away from the “soda fountain” era; yet despite an education that prepared them for much more, pharmacists of this era practiced “count, lick, stick and pour.”

Business Owner

- ◉ There has always been an inherent conflict in community pharmacy between the pharmacist the health care professional and the pharmacist the business owner.
- ◉ This conflict has been mitigated with the rise of chain pharmacies and the conversion of most community pharmacists from owner to employee.

Chain Pharmacy

- The most dramatic shift that has occurred in American community pharmacy has been the advent of chain pharmacies and the demise (to a large extent) of independent pharmacies.
- In its heyday, prior to the last quarter of the 20th century, community pharmacy owners exerted tremendous control over the profession from state and national pharmacy organizations to state boards of pharmacy.

Chain Pharmacy

- The concept of chain pharmacy began in Great Britain with companies such as Boots, LTD.
- After the Civil War, early chain pharmacies included Cora Dow of Cincinnati, Hall and Lyon in Providence, Hegeman and Company in New York, and Charles B. Jayne in Boston; they were followed by Economical-Cunningham Drugstores, Read Drug and Chemical Company (now Rite Aid), Hook Drug, Peoples Drug, and Thrifty.
- Key American pioneers in chain pharmacy: Charles Walgreen and Louis K. Liggett (Rexall brand).

Chain Pharmacy

- ◉ For example, independent pharmacy owners played an integral role in enacting legislation in many states requiring community pharmacies to be owned by a pharmacist.
- ◉ In many states, the state boards of pharmacy prevented chain health & beauty stores (e.g., CVS) from obtaining a license to operate a pharmacy.

Chain Pharmacy

- Gradually, these restrictions were lifted and by the later part of the 20th century, the number of independent community pharmacies significantly decreased and the United States fully entered an era in which chain pharmacies, both regional and national, dominated community practice.
- Although founded in 1933, it was not until the last few decades of the 20th century that the National Association of Chain Drug Stores (NACDS) became a powerful force in the profession and politically.
- For many years, NACDS and the National Community Pharmacists Association (NCPA), which together represented community pharmacy, were at odds; in recent years, they have come together in support of common goals such as freedom-of-choice and pharmacist provider status.

“Big Box” (Mass Merchant) Retail and Supermarket Pharmacies

- The first supermarket pharmacies appeared in the 1960s, while the first “Big Box” retail pharmacies were opened in the 1970s.
- “Big Box” Retail Pharmacies: e.g., Walmart, Costco, Target (CVS)
- Supermarket Pharmacies: e.g. Stop & Shop, Hannaford

On-Line Pharmacies

- ◉ Preferred by third party payers due to potential for cost savings versus “brick & mortar” pharmacies
- ◉ Concerns about “rogue” pharmacies
 - NABP: VIPPS (*Verified Internet Pharmacy Practice Sites*)

Hospital Pharmacy Practice

- Hospital pharmacy practice, which continued to grow in the 20th century, followed much of the same pattern as community pharmacists of the era: dispensers of medications.
- Oral medications were generally sent to patient floors in bulk supply with nurses using these supplies to meet the medication needs of several patients.
- Parenteral medications were prepared by nursing staff, without the use of laminar flow hoods or clean rooms in patient care areas.

Hospital Pharmacy Practice

- 1960s: John Webb, pharmacist-in-chief at the Massachusetts General Hospital, introduced the concept of MOSAICS (*Medication Order Supply And Individual Charge System*), the first attempt in the United States to provide a patient –specific supply of medication and bring pharmacists to the patient-care area for the first time.
- 1970s: Unit-Dose is developed and becomes widely used, allowing a day's supply (or part of a day) for a specific patient to be sent to the patient care floor.

Hospital Pharmacy Legend: John Webb

He grew up in Portland graduating from Deering High School. He started studies at Mass College of Pharmacy, but his education was put on hold when he was drafted by the Army in his sophomore year. While waiting to go overseas he was selected to attend a pharmacy technician program at Fort Sam Houston. After being discharged from the service he returned to Mass. College of Pharmacy where he received his B.S. and M.S. degrees. In Portland he worked at H.H. Hayes Store on Congress Street and at Bachelder's Drug Store in the Rosemont section. In 1951 he became Chief Pharmacist at Hartford Hospital, Hartford, CT. He was also on the faculty at University of Conn. College of Pharmacy. From 1959 until his retirement in 1984 he served as Director of Pharmacy at the Mass. General Hospital and Mass. Eye and Ear as well as having administrative responsibility for pharmacy service to the Shriner's Burn Institute in Boston. He served on the faculty of both the Mass. College of Pharmacy and Northeastern University College of Pharmacy. He was director of the graduate program in hospital pharmacy at Northeastern for 20 years. In 1985, Northeastern established the John W. Webb Visiting Professorship in his name. A longtime member of the American Society of Hospital Pharmacists, he served as Vice President of the Society and as a member of the Board of Directors for several years. He also served as Vice President and President of the Mass. Society of Hospital Pharmacists.

John introduced the use of infusion pumps to administer IV solutions, a system which is now common practice in hospitals throughout the world. This process, for the first time, saved lives of premature babies with severe infections, reduced the incidence of blindness and strokes and saved millions of dollars in health care costs. It also allowed the infusion use of IV solutions to astronauts in outer space where there is no gravity. He also developed MOSAICS, a distribution system which brought the pharmacist to patient care units, working alongside nurses. The system reduced hospital costs and medication errors.

Clinical Pharmacist

- The 1960s and 1970s saw the emergence of clinical pharmacy practice, beginning in hospitals, that began to take greater advantage of a pharmacist's education and skills; in hospitals, for many years, there was a differentiation between “dispensing” pharmacists and clinical pharmacists.
- As greater number of medications became available, physicians began to rely to an increasingly greater degree on pharmacists as medication experts.

Clinical Pharmacist

- ◉ Since the clinical pharmacy movement first occurred in hospitals, pharmacy hospital practice became the site of choice for many pharmacists (and gained greater prestige) in the 1970s and 1980s.
- ◉ The 1960s and 1970s saw the emergence of the first residencies (practice-based) and later fellowships (research-based).

Women and Minority Groups in Pharmacy

- The number of women in the profession went through dramatic changes beginning in the 1970s, going from less than 4% in 1950 to about 40% by 2000.
- While Asian Americans are now largely not underrepresented in pharmacy, African Americans (despite the existence of pharmacy schools at HBCUs) continue to be, as do Hispanic Americans.

Technology in Pharmacy Practice

- The late 20th century saw a rapid increase in the use of technology by pharmacists in both community & hospital settings.
- Computerization and the use of other advanced technologies became an integral component of every aspect of practice.
- E-prescribing, electronic health records (EHR), and on-line adjudication of prescription claims have become commonplace.

Medication Therapy Manager

- With the advent of pharmaceutical care, pharmacists have become true medication therapy managers; MTM has found its way into federal and state legislation.
- Contemporary pharmacists now play key roles as members of Institutional Review Boards (IRBs), Pharmacy & Therapeutics Committees, and as consultants to healthcare facilities.

Pharmacy Practice in the 21st Century

- ◉ Managed Care and PBMs
- ◉ Direct-to-Consumer Advertising
- ◉ Internet Pharmacies
- ◉ Traditional Chain Pharmacies, Mass Merchant Pharmacies, Supermarket Pharmacies
- ◉ Provider Status for Pharmacists
- ◉ Specialty Certification
- ◉ Chain Pharmacies Big Three: CVS, Walgreens, Rite Aid (soon to be the Big Two with Walgreens acquisition of Rite Aid)
 - Horizontal & Vertical Integration