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This slide presentation was compiled and produced by Robert McCarthy, Ph.D., Professor and Dean *Emeritus* at the University of Connecticut School of Pharmacy for his class "The History of American Pharmacy." Prof. McCarthy created this version of the slide talk for his class in the Spring of 2016.

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Pharmacy Practice Sites

PHRX 4001W-002 The History of American Pharmacy Spring 2016

- O Independent Pharmacy has gone through dramatic change over the last several decades; where once it was the preferred practice site not only for community pharmacists, but for all pharmacists, the number of independent pharmacies has declined precipitously for a number of years (although there has been a slight increase in recent years).
- O Those independents that survive and thrive today generally diversify or specialize their services; services such as prescription compounding, which are generally not provided by chains, are often provided by independents.
- O Contemporary challenges to independent pharmacies include competition from chain pharmacies, reimbursement issues, and restricted networks.

- O Chain Pharmacy
- O By 1900, there were approximately 25 pharmacies in the U.S. that were a part of a chain; by 1920, there were 1565 chains (approximately 3% of all U.S. community pharmacies)
 - O Largest early chains:
 - O Liggett Company (NYC): 211 pharmacies
 - Owl Drug Company (SF): 32 pharmacies
 - O Walgreen Drug Company (Chicago): 21 pharmacies

O Chain Pharmacy

- O The rapid growth of Liggett led to a NY laws requiring that any new pharmacies that opened should be owned by pharmacists; Pennsylvania passed a similar law; In 1928, Liggett appealed all the way to the U.S. Supreme Court that ruled in favor of Liggett.
- O 1973: U.S. Supreme Court reversed the 1928 decision by finding the North Dakota law requiring majority ownership of pharmacies by pharmacists constitutional.

- O Chain Pharmacy
 - **O** Traditional Chain Pharmacies
 - O CVS, Walgreens, Rite Aid (originally Read Drug and Chemical Company)
 - ORexall (1920-1977): name licensed by 12,000 drug stores
 - O Supermarket Pharmacies
 - O Stop & Shop
 - O Mass Merchandise Pharmacies
 - 0 Wal-Mart, Target



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Ambulatory/Primary Care Pharmacist

- O Early ambulatory pharmacies were found in hospital outpatient clinics and served the indigent; today, in response to managed care pressures (discharge patients from the hospital "quicker & sicker"), hospital ambulatory clinics now serve a range of patients.
- O Federally-Qualified Community Health Centers
- O Means-Tested Sliding Fee Scale
- O Primary care pharmacists today provide care for a range of diseases (e.g., diabetes, asthma) and a range of ages.

Hospital Pharmacy

- 0 1910: The Flexner Report significantly altered medical education in the U.S.; hospitals became medical teaching and research centers
- O 1946: Hospital Survey & Construction Act (Hill-Burton Act): built new hospitals, expanded and renovated existing facilities
- O Hospital Pharmacy grew as the number of hospitals in the U.S. expanded
- O 1937: Report of the Committee of Pharmacy of the American Hospital Association—developed standards for hospital pharmacies and a manual for pharmacy operations.



Hospital Pharmacy: Leading the Development of Clinical Pharmacy

- **0** Two key leaders:
 - O Donald Francke
 - O Director of Pharmacy, University of Michigan Medical Center
 - O Directed a nationwide survey project that studied the various services hospital pharmacies provided and how they operated for the U.S. Public Health Service, leading to a 1964 report that provided a blueprint for transforming hospital pharmacy into clinical pharmacy
 - **0** 1959: Developed the *American Hospital Formulary Service* (today: *AHFS Drug Information*)
 - **0** 1964: Published *International Pharmacy Abstracts*
 - **0** 1969: Inaugurated *Drug Intelligence and Clinical Pharmacy*
 - 0 1968: Assisted in the establishment of the first academic department devoted to the study of clinical pharmacy at the University of Cincinnati

Hospital Pharmacy: Leading the Development of Clinical Pharmacy

- **0** Two key leaders:
 - O Donald Brodie
 - O Devoted his career to encourage pharmacists to shift from drug-orientated care to patient oriented care
 - **0** 1973: Introduced the term pharmaceutical care
 - 0 1955: Endorsed the introduction of a six-year Pharm.D. program at UCSF
 - O 1966: Brodie and his associates, William E. Smith, Jr., Sidney Riegelman, Eric Owyang, Donald Sorby, and Jere Goyan, transformed clinical pharmacy by placing a 24/7 satellite pharmacy a general surgery floor next to a nursing station
 - 0 1967: Advocated for interprofessional patient care and the role of the pharmacist on the health care team

Hospital Pharmacy

- O Floor stock to unit-dose system
- O Parenteral admixture service
- O Centralized, decentralized pharmacy services
- O Hospital formulary system
- O Investigational Drugs
- O Drug Therapy Monitoring
- O Medication-Utilization Evaluation
- O Medication Reconciliation
- O Joint Commission

Hospital Pharmacy

- O Hospital Pharmacy Specialties
 - O Critical Care Specialist
 - O Drug Information Specialist
 - O Infectious Disease Specialist
 - O Nutrition Support Specialist
 - Oncology Specialist
 - Operating Room Pharmacist
 - O Emergency Department Pharmacist
 - O Pediatric Specialist
 - O Poison Control Pharmacist
 - O Psychiatric Specialist

Drug Information Centers

- 0 1962: First drug information center established at the University of Kentucky.
- O It was hoped that such a center promote the use of rational drug therapy.
- O Drug information centers enabled pharmacists to play a key role in patient-centered drug therapy, advancing clinical pharmacy.

Long-Term Care (Consulting) Pharmacy

- O Focus is on senior care, especially those in nursing homes, but can also include care of older persons in sub-acute care and assisted living facilities, psychiatric hospitals, hospice programs, and in home and community-based care
- **0** 1965: The passage of Medicare formally introduced the concept of a consultant pharmacist.
- 0 1966: George Archambault, "the father of consultant pharmacy," delivers "Crisis in Nursing Homes" lecture at Northeastern University.
- **0** 1969: American Society of Consultant Pharmacists established.

Long-Term Care (Consulting) Pharmacy

- **0** 1982: The first issue of *The Consultant Pharmacist* is published.
- O 1997: The Commission for Certification in Geriatric Pharmacy (CCGP) is established.

Home Care Pharmacy

- O Home care has existed in the United States for many decades (first VNA in Omaha in 1896), highlighted by the work of Visiting Nurses Associations and home visits by physicians; pharmacy has for many decades been part of home care through providing durable medical equipment, ostomy supplies and other supplies and equipment through community pharmacies.
- O Due to advances in technology and clinical practice, as well as financial pressures and personal preferences to limit hospitalization, home care pharmacy, in particular home infusion therapy, has grown rapidly since the 1980s.

Home Care Pharmacy

- O Home Infusion Therapies Today
 - O Parenteral and Enteral Nutrition
 - O Anti-Infective Therapy
 - O Pain Management
 - O Chemotherapy
 - O Biologics and Related Plasma-Derived Therapies
 - 0 Hydration
 - O Inotropic Therapy

Hospice Pharmacy

- O Hospice is care, not cure, of the terminally ill and support for their families; can be home or institutional-based.
- 0 1967: First hospice developed in England.
- 0 1974: Connecticut Hospice in founded in Branford, Connecticut.
- 0 1978: The National Hospice and Palliative Care Organization is established.
- 0 1986: Congress makes a hospice a permanent benefit in Medicare; states are given the option of including hospice in their Medicaid programs.
- O Pharmacists play a key role in medication therapy management in many hospices.

Managed Care Pharmacy

- O Goal of a managed care pharmacy is to maximize pharmaceutical care access & quality, while containing costs.
- 0 1973: Congress passed the Health Maintenance Organization (HMO) Act—Kaiser Permanente, Group Health Cooperative of Puget Sound among the early managed care organizations.
- O Practice settings include HMOs, and pharmacy benefit management companies (PBMs).
- O Managed Care Pharmacist duties include: data integration, communication management with physicians and patients, outcomes research efforts, drug utilization review, disease management, academic detailing, cost analysis programs, and pharmacy benefit design.

Nuclear Pharmacy

- O Radiopharmaceuticals are used in both diagnosis and treatment.
- 0 1950: Abbott Labs sold the first radioactive drug.
- 0 1958: NIH established a radiopharmacy.
- 0 1975: Section on Nuclear Pharmacy established by APhA.
- O 1978: Nuclear Pharmacy Practice Standards accepted by the Section on Nuclear Pharmacy; the Board of Pharmaceutical Specialties formally recognizes nuclear pharmacy as a specialty.

Veterinary Pharmacy

- O Veterinary pharmacies exist in both animal hospitals and community pharmacies, either exclusively focused on medicines for animals or as a component of a traditional pharmacy practice.
- 0 1998: American College of Veterinary Pharmacists is focused on supporting the veterinary practices of independent pharmacists.
- O The Society of Veterinary Hospital Pharmacists is focused on supporting veterinary pharmacists practicing primarily in hospitals in colleges of veterinary medicine.

Military Pharmacy

- O Includes the Army, Navy, Air Force, and Public Health Service (If Veteran's Administration pharmacists are included, they are referred to as "federal pharmacists.")
- O During the Civil War, apothecaries and druggists could enter the military as a "hospital steward" (Army) or "surgeon's steward" (Navy); their duties were "the storing and safe keeping of medical and hospital supplies."
- 0 1920: The Medical Administration Corps was established, which included 15 commissioned pharmacist officers by 1922.
- 0 1947: The Medical Service Corp was established consisting of various health professions in the Army & Navy.

Military Pharmacy

- **0** 1945: The U.S. Public Health Service established a pharmacy service, led by a senior pharmacist officer.
- O 1957: APhA established the Section of Military Pharmacy; later called the Federal Pharmacy Section; although it was disbanded in 1987, military pharmacists still meet annually at the APhA Meeting.



