



## Facts Supporting the Development or Expansion of Pharmacy Programs

### Pharmacist Shortage

- A nationwide survey conducted by NACDS showed that there were 5,971 vacancies in retail pharmacist positions in July 2005. This is an increase from January 2004 when there were 4,008 vacancies.
  - NACDS Foundation, Chain Pharmacy Employment Survey Results, 2005; Available at: [www.nacdsfoundation.org/user-assets/documents/PDF/July%202005%20Employment%20Survey.pdf](http://www.nacdsfoundation.org/user-assets/documents/PDF/July%202005%20Employment%20Survey.pdf)
- All six New England states reported retail pharmacist shortages in July 2005, with the most severe shortages in Connecticut and Maine.
  - NACDS Foundation, Chain Pharmacy Employment Survey Results, 2005; Available at: [www.nacdsfoundation.org/user-assets/documents/PDF/July%202005%20Employment%20Survey.pdf](http://www.nacdsfoundation.org/user-assets/documents/PDF/July%202005%20Employment%20Survey.pdf)
- The predicted increase in the pharmacist workforce is 28,500 between 2000 and 2010; this is 800 less than the growth of the pharmacist workforce between 1990 and 2000.
  - Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, “Report to Congress; The Pharmacist Workforce: A Study of the Supply and Demand for Pharmacists.” December 2000. Available at: <http://bhpr.hrsa.gov/healthworkforce/reports/pharmacist.htm>
- The increase in the pharmacist workforce is not keeping up with demand
  - Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, “Report to Congress; The Pharmacist Workforce: A Study of the Supply and Demand for Pharmacists.” December 2000. Available at: <http://bhpr.hrsa.gov/healthworkforce/reports/pharmacist.htm>
- In 2005, a 6.2% vacancy rate was reported for hospital pharmacists (in non-federal practice settings). This is statistically similar to the vacancy rate of 5.0% for 2004, but lower than the peak vacancy rate of 8.9% in 2000.
  - ASHP, “2005 ASHP Pharmacy Staffing Survey.” Available at: <http://www.ashp.org/practicemanager/StaffingHRRes.cfm?cfid=7685238&CFToken=25167726>
- In 2000, an 11% vacancy rate was reported for pharmacists working in federal practice settings, as compared to 5% in 1996.
  - Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, “Report to

- Congress; The Pharmacist Workforce: A Study of the Supply and Demand for Pharmacists.” December 2000. Available at: <http://bhpr.hrsa.gov/healthworkforce/reports/pharmacist.htm>
- The average number of prescriptions filled annually by an individual pharmacist rose from 17,400 in 1992 to 22,900 in 1999, a 32% increase.
    - Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, “Report to Congress; The Pharmacist Workforce: A Study of the Supply and Demand for Pharmacists.” December 2000. Available at: <http://bhpr.hrsa.gov/healthworkforce/reports/pharmacist.htm>
  - An expert conference in 2001 predicted a shortage of 157,000 pharmacists nationally by the year 2020, due to expanding roles for pharmacists, aging of the population, and significant increasing demand for prescriptions as well as pharmaceutical services.
    - Knapp DA, “Professionally Determined Need for Pharmacy Services in 2020.” 2001; Available at: <http://www.nacds.org/user-assets/pdfs/Pharmacy/2020Needs%20Conferencefinalreport.pdf>
  - Of the 92 colleges of pharmacy in the United States, only 4 are located in New England: Mass College of Pharmacy, Northeastern University, University of Connecticut, and the University of Rhode Island. In 1992 there were only 75 colleges of pharmacy.
    - Listing available at: <http://www.univsource.com/phar.htm>

### Aging Population

- In Rhode Island, the 50-64 year old age group is projected to increase by 38.6% between 2000 and 2010; the 35-49 year old age group is projected to decline by 7.5% in the same time period. This progression demonstrates the aging of the baby boomer generation.
  - RIPEC, “Rhode Island 2010, Charting a New Course: Demographic Challenges to Affordable Public Services,” October 2005.
- In 2000, Rhode Island ranked 6<sup>th</sup> among the 50 states and Washington DC for highest concentration of seniors age 65 and over (14.5%). By 2025, Rhode Island 18.8% of the Rhode Island population is expected to be over age 65. 2% of Rhode Island’s population was age 85 or older in 2002, ranking 5<sup>th</sup> among the states. In 2025, 2.5% of the Rhode Island population is expected to be over 85 years old.
  - Novartis, “The Senior Care Source,” 2006, volume 3.
- There is expected to be a rise in the percentage of the total population that is greater than 65 years old over the next 50 years. In 2000, 12.4% of the population was 65 years or older. By 2050, that number is expected to rise to 20.7%.
  - Novartis, “The Senior Care Source,” 2006, volume 3.
- The baby boomer generation will have reached age 60 by 2020, patients over age 65 typically use 3 times as many medications as those under age 65.
  - Knapp DA, “Professionally Determined Need for Pharmacy Services in 2020.” 2001; Available at: <http://www.nacds.org/user-assets/pdfs/Pharmacy/2020Needs%20Conferencefinalreport.pdf>

- Life expectancy has been increasing steadily over the past century. At birth, the average life expectancy of an individual in the year 1900 was 47.3 years. A person born in 2002 had a life expectancy of 77.3 years.
  - CDC, “Health, United States, 2004: with Chartbook on Trends in the Health of Americans.” 2004; Available at: <http://www.cdc.gov/nchs/data/hus/hus04trend.pdf#027>
- In 2002, an individual 65 year old was expected to live an additional 18.2 years, a 75 year old person was expected to live an additional 11.5 years.
  - CDC, “Health, United States, 2004: with Chartbook on Trends in the Health of Americans.” 2004; Available at: <http://www.cdc.gov/nchs/data/hus/hus04trend.pdf#027>

### Increasing Prevalence of Disease States

- Average number of prescriptions filled by a person 65 or older in the United States is 25.5. The average senior citizen in Rhode Island fills 25.3 prescriptions, as apposed to 9.6 for people age 19-64 and 4 for people age 18 or less.
  - State health facts, Available at: <http://statehealthfacts.kff.org/cgi-bin/healthfacts.cgi?action=compare&category=Health+Costs+%26+Budg&subcategory=Prescription+Drugs&topic=Retail+Rx+Drugs+by+Age>
- In 2001, the cancer rate incidence in RI was 510.5/100,000 compared to the US rate of 461.6/100,000.
  - State health facts, Available at: <http://www.statehealthfacts.org/cgi-bin/healthfacts.cgi?action=profile&area=Rhode+Island&category=Health+Status&subcategory=Cancer+Incidence&topic=Cancer+Incidence+per+100%2c000>

### Economic Impact

- Economic studies commissioned by colleges of pharmacy throughout the country have demonstrated the economic benefits of beginning new programs, or expanding existing programs.
  - NEOUCOM Press Release, “NEOUCOM Doctor of Pharmacy Program Approved by Ohio Board of Regents,” Nov. 10, 2005.
  - University of Cincinnati, “UC Medical Center Economic Impact Approaches \$4 Billion,” Available at: <http://medcenter.uc.edu/impact.cfm>
  - University of New Mexico, “The Economic Impact of the University of New Mexico Health Sciences Center FY 2001-2002,” Available at: <http://www.unm.edu/~bber/pubs/HSCImpact.pdf>