

## Background

➤ Outcomes research as a career opportunity has gained momentum in the healthcare arena. This has been supported by the growing desire to control rising healthcare costs while still ensuring quality care to patients. The Patient Protection and Affordable Care Act of 2010 contains a number of references to outcomes research and consequently more funding and grants are being made available for related initiatives. Pharmaceutical companies and managed care institutions are also placing resources into their outcomes research departments in an effort to evaluate the clinical and economic impacts of healthcare interventions. The demand for individuals such as PharmDs who have strong clinical backgrounds and would be suited for the Health Outcomes Research field has led to related post-graduate fellowship programs. The programs available vary with regard to eligibility, competitiveness, and a number of additional characteristics. Identifying programs and determining which opportunities meet the interests of a potential candidate are important first steps to entering this field.

## Objectives

➤ To evaluate the availability and scope of Health Outcomes Research-focused training opportunities with both a pharmaceutical industry component and an academic component for PharmDs.

## Methods

➤ Post-graduate programs in Health Outcomes Research were identified through the Academy of Managed Care Pharmacy (AMCP) website, the American College of Clinical Pharmacy (ACCP) website, the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) website, and by conducting a broad internet based search.

➤ Of the post-graduate programs in Health Outcomes Research that were identified, only those programs which are available to PharmDs and which include a practical or experiential component (i.e., in the setting of the pharmaceutical industry) in addition to an academic component were included for further analysis.

➤ Program listings, websites, and brochures were reviewed and the following information was extracted: year of program establishment, duration of program, location of program, applicant eligibility, number of positions available, and type of degree or certificate earned. Program directors were contacted on an individual basis to supplement information on parameters not addressed in the program website, brochure, or in the public domain (e.g., past fellowship recruitment efforts, applicant pool, fellowship alumni, the number of fellows graduating in 2011 who continued within Health Outcomes Research following program completion).

➤ The data was pooled and analyzed to characterize the eligibility, availability, and scope of fellowship programs available to PharmDs in Health Outcomes Research with both a pharmaceutical industry component and an academic component.

## Results

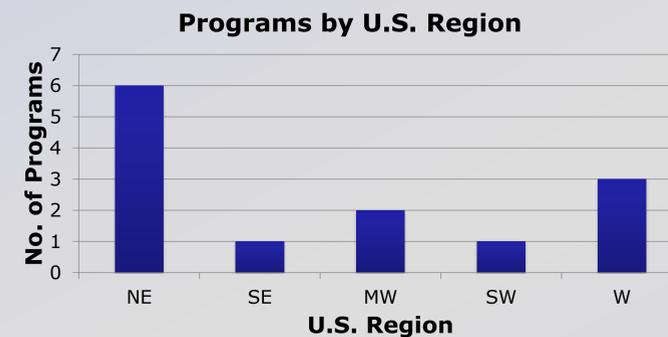
➤ Thirteen post-graduate fellowship programs focused on Health Outcomes Research with both a pharmaceutical industry component and an academic component that are available to PharmDs were identified.

➤ 1/13 (7.7%) programs are limited to PharmDs only.

➤ The majority of the programs (92.3%) are 2 years in duration and one program is one year.

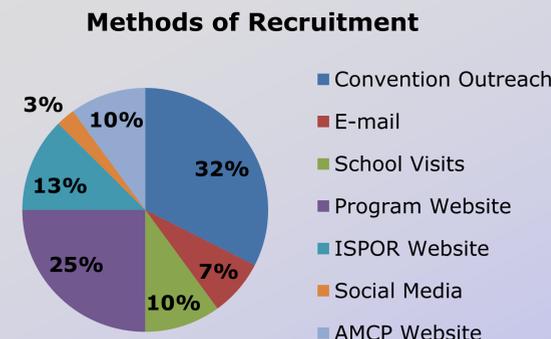
➤ A majority of the programs identified are in the Northeast (NE). Three programs are in the West (W), two programs are in the Midwest (MW), and there is one program available in both the Southeast (SE) and the Southwest (SW). See Figure 1.

**Figure 1:**



➤ The most commonly used method of recruitment is through outreach at conventions (33%) followed by the program's website (26%). Other methods of recruitment are utilization of the ISPOR website, the AMCP website, school visits, email, and social media. See Figure 2.

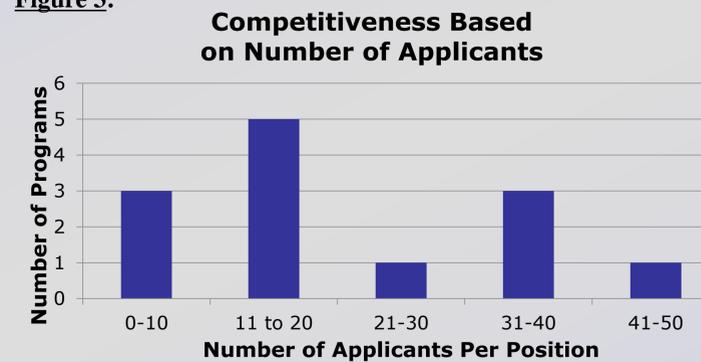
**Figure 2:**



➤ 8/13 programs provide fellows with an option to earn a Masters degree during their training and two programs offer a certificate of completion only.

➤ During the last recruitment period, five programs reported receiving 11-20 applicants per position. See Figure 3.

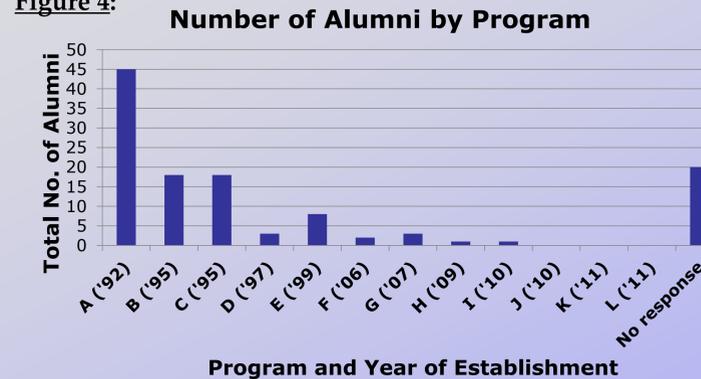
**Figure 3:**



➤ 15/16 (93.7%) of the fellows graduating in 2011 continued a career in Health Outcomes Research after program completion.

➤ There are a total of 119 alumni that have graduated from the 13 programs identified. Program A, established in 1992, has the greatest number of alumni (45), and two programs (B and C) established in 1995 have 18 alumni each. See Figure 4.

**Figure 4:**



➤ 11/13 programs are planning to recruit for the same number of positions offered in their last recruitment period. Due to lack of budget, one program did not recruit in their last recruiting period but will be recruiting for one position in 2011. Another program offered two positions in their last recruitment period but will not be offering any positions in 2011.

## Discussion

➤ Of the 13 programs identified, only one program requires a PharmD and all others are open to those with advanced degrees or training in health outcomes related areas (e.g., public health, health policy). Given the high interest in these programs, as evidenced by the number of applicants received per position, there may be a need for more training opportunities in Health Outcomes Research with a pharmaceutical industry component that are available to PharmDs.

➤ A majority of the programs identified are available in the Northeast and West regions of the U.S. which may suggest that there may be a need for development of programs outside of these regions.

➤ These programs rely primarily on conventions and their website to recruit prospective candidates. Online websites such as ISPOR and AMCP were also reported as methods of recruitment however only one program reported using social media (e.g., Facebook, LinkedIn). Capitalizing on the growing popularity and use of social media may be beneficial for programs in their recruitment efforts.

➤ The majority of programs identified plan to offer the same number of fellowship positions as in their last recruitment period. Six programs were established within the last five years indicating a growth in Health Outcomes Research training opportunities. This may be due to an increasing desire to minimize healthcare costs.

## Limitations

➤ Programs were only identified if they were within the public domain.

➤ Program directors were directly contacted however there was not a 100% response rate. This could be due to the fact that programs listed on the internet no longer exist or contact information is outdated.

## Conclusions

➤ There are a number of opportunities across the U.S. for PharmDs to pursue post-graduate training in Health Outcomes Research. However, the number of programs with a pharmaceutical industry component are somewhat limited, and as a result, are fairly competitive. PharmDs who are accepted in a fellowship in Health Outcomes Research with a pharmaceutical industry component are likely to secure a career opportunity in the related field upon completion. As the interest in such fellowships is high, an increase in similar programs could lead to the expansion of PharmDs in the Health Outcomes discipline.

### Author Contact Information

Rutgers Pharmaceutical Industry Fellowship Program  
160 Frelinghuysen Road, Room 405  
Piscataway, NJ 08854-8020