

Career Opportunities in the Pharmaceutical Industry

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For professionals with a background in statistics, the Philippines' growing pharmaceutical services industry offers a new career path and opportunity to help advance medical research delivering life-changing medicines to patients in need. In today's fast-shrinking global marketplace, the Philippines is a growing hub for the pharmaceutical industry, specifically contract research organizations (CROs), which need statisticians and programmers as important members of clinical trial project teams to perform vital tasks, including data analysis and interpretation.

Research to develop new medicines is going more global. "An ever-increasing proportion of this research is performed outside the 'established' markets of North America and Western Europe," according to the Association of Clinical Research Organizations (ACRO). "Contrary to popular belief, the globalization of drug development is not driven by cost savings ...; rather, the ability to access a global population of 6.8 billion people for participation in clinical trials significantly speeds the development process, sometimes cutting the cycle in half." With an increasing proportion of research being conducted in the Asia Pacific region, more pharmaceutical services companies are establishing offices in the Philippines and looking to do more work in this area.

Increasingly, pharmaceutical companies are partnering with contract research organizations (CROs) to perform important aspects of clinical research, including managing clinical trials and performing laboratory services. CROs with comprehensive service offerings and global capabilities can provide time, quality and cost efficiencies to pharmaceutical companies. These efficiencies are particularly important, given that it can take a decade or longer and US\$1 billion or more to bring one new medicine to market. Today, the pharmaceutical industry is facing increasing pressures, with revenue-driving drugs losing patent protection. When a drug is approved, the pharmaceutical company is given a limited number of years with exclusive rights to produce the drug. However, after this time passes, other companies are allowed to create generic versions, costing the original company significant income.

CROs are pivotal in helping pharmaceutical companies improve the speed of drug development to get products into the market more quickly, with the highest possible quality.

A CRO can be defined as a “person or organization (commercial, academic, or other) contracted by the sponsor to perform one or more of a sponsor’s trial-related duties and functions” (ICH-GCP, 1996). Pharmaceutical companies can allow a CRO to complete all trial-related tasks, but the pharmaceutical company has “the ultimate responsibility for the quality and integrity of the trial data” (ICH-GCP, 1996). A variety of CROs exist in the market currently. Some provide a limited scope of service for a specific need, such as medical writing or regulatory support. Others are larger, even global in scope, and work to provide all services that a pharmaceutical company might need. These larger CROs have the capacity to run a small part of one clinical trial or, on the extreme, manage all of the clinical trials that a pharmaceutical company conducts.

This trend of increased CRO usage is not forecasted to change soon. “Over the past 12 months, outsourcing has increased by 7 percent and in the next 12 months it will continue to increase by another 8 percent” (ISR Reports, 2013). The “CROs, and perhaps especially the large ones, will be the biggest beneficiaries” of the increased outsourcing (ISR Reports, 2010). Pharmaceutical companies are moving to consolidate the number of CROs they use to drive better costing and ease in managing a smaller number of vendors. This has led to an advantage to the larger CROs that are able to support multiple large global trials. These larger CROs are expanding, including in the Philippines.

This combination of increased pharmaceutical activity in the Asia Pacific region, and the increased trend towards the use of CROs provide a unique opportunity for statisticians and programmers. Both are important members of clinical trial project teams. They help determine the number of patients needed for a clinical trial, perform analysis, create and interpret the study results that are sent to regulatory agencies, and ensure the project team is considering the key analysis needed throughout the life of the trial. Within the project team, strong communication skills are key. Statisticians and programmers deal with team members from many different backgrounds. It is important that they can clearly articulate concepts to non-statisticians and understand how data collected incorrectly can affect the resulting analysis. For programmers, a strong knowledge of SAS is important to be able to appropriately process the data and produce the needed outputs.

The increase in the need for this type of skill-set makes the Philippines ideally situated for pharmaceutical services industry growth. In my experience with the recent expansion of our office in Manila, we are able to find appropriately qualified candidates with strong communication and English skills. Generally, the Philippines has an advantage over many other Asian countries where English is not the primary language used in school and business. While part of the onboarding

process needs to include an education about the pharmaceutical industry, many of the technical and non-technical skills already exist to make successful global team members.

The biopharmaceutical services industry is charting a path of growth in the Philippines, and for professionals with a background in statistics, now is the time to begin exploring this exciting career path.

REFERENCES

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