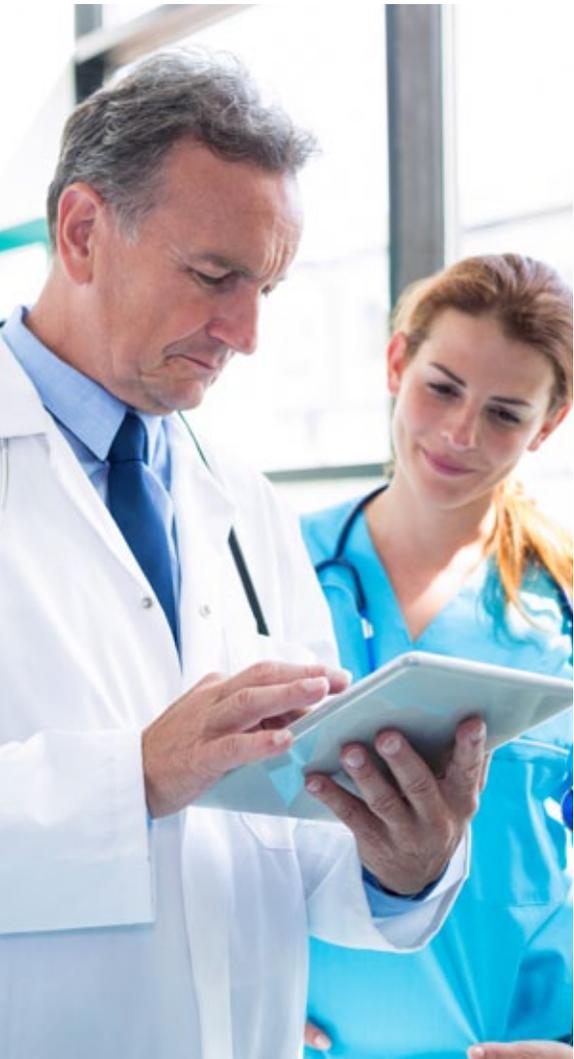




Data analysis prescribed to strengthen nurse training

Advanced analytics helps a university nursing department in Europe turn data into personalized curriculums for students and drive improved care for patients.

Case Study



COMPANY PROFILE

Company
University hospital

Industry
Education



Country
Europe

Employees
3,900 medical faculty and staff

BUSINESS NEED

The Department of Nursing at a top-ranking university hospital needed to analyze large volumes of survey and evaluation data to improve and better target its training programs.

SOLUTION

The training hospital now relies on Statistica to unlock hidden insight from data to build customized training courses for students — both in the classroom and at the bedside.

BENEFITS

- Better care for university hospital patients
- Personalized student training
- Easy-to-use interface
- Time savings
- Reduced errors

The past informs and enriches the present at one of the oldest continually operated universities in Europe. Having survived more than 600 years of wars, shifting boundaries, and political upheavals, the university now faces another challenge — how to unlock insight from its data.

“For many years, we’ve been trying to find the best ways to incorporate the results of our research into our teaching,” says the Director of Nursing at the university. “We are committed to turning our data into lessons that will help our students develop the knowledge and skills they need to excel.”

The Department of Nursing offers instruction in medical-surgical nursing, mental health nursing, and the pedagogy of nursing and medicine.

One of the department’s key activities is clinical training, where nursing students work side by side with mentors, caring for actual patients in hospitals, clinics and similar settings. “Clinical training is a crucial step in a nurse’s education,” says the Director of Nursing.

“With the Statistica solution’s clear graphical representations, accurate scaling and simple integration of the output with familiar Microsoft Office tools, there is nothing to keep us from understanding the stories our data is telling.”

- Director of Nursing at a top-ranking research institution in Europe





“The opportunity to take what has been learned from books and classroom instruction and put it to use with patients suffering from real illnesses, injuries and chronic conditions really helps students strengthen their knowledge and gain the confidence they will need on the job.”

SEEKING MORE THAN JUST THE RIGHT USING DATA ANALYSIS TO IMPROVE TRAINING

As part of the university's and the hospital's long-standing commitment to continuous improvement, the Department of Nursing wanted to evaluate data collected through surveys about the clinical training experiences of its students, including evaluations of both students' preparation and mentors' interactions with students. The data would be used as the basis for designing new training programs that were scheduled to be submitted for accreditation in 2015.



“ The Statistica solution makes it much easier for us to show our students the possibilities and the ultimate value of data analysis done right.”

- Director of Nursing at a topranking research institution in Europe



“The aim of our investigation was to get a sufficient amount of valid data for designing programs aimed at specific groups of trainees,” says the Director of Nursing. “We wanted to provide the most efficient and customized training experiences possible, in order to help them maximize their ability to bring new knowledge and skills with them into their professional practices.”

One obstacle to performing this analysis was the large volume of survey data that had been collected. The department needed fast, reliable tools that would help the team gain the most value possible from it. Having used Statistica software for a number of years, the department director knew it was the right tool for the job. The team deployed a solution based on Statistica Advanced software, which supports advanced linear and nonlinear modeling, multivariate exploration, power analysis and interval estimation. The solution also included the Statistica Reporting Tables.

In addition to the clinical program survey project, the Department of Nursing also uses Statistica to analyze data from long-term research studies and to incorporate evaluations of external training programs.

SIMPLE TO USE

Given the mandate placed on the Department of Nursing, there is no time to waste on data analysis processes that are time-consuming or difficult for users. “Our priority is simple — fast, reliable, professional processing of our data — and that’s what we get from Statistica,” says the Director of Nursing. “With the Statistica solution’s clear graphical representations, accurate scaling and especially the simple integration of the output with familiar Microsoft Office tools, there is nothing to keep us from understanding the stories our data is telling.”

SAVES TIME AND REDUCES ERRORS

With the Statistica solution, the Department of Nursing can analyze large data volumes from questionnaire surveys and generalize the results reliably. "Working with Statistica makes things much easier for us," says the Director of Nursing. "The Statistica solution saves time, eliminates errors and, most important, provides more specific and accurate results."

STRENGTHENS STUDENT TRAINING

Not only does the Statistica solution support powerful data analysis that the Department of Nursing can use to improve its training methods, the solution also helps the department put its own principles into practice by showing students what can be achieved through rigorous data analysis. "One of the main aims of our program is to teach students how to evaluate data critically and think about analytical outputs," says the Director of Nursing. "The Statistica solution makes it much easier for us to show our students the possibilities and the ultimate value of data analysis done right."

ABOUT STATISTICA

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