Regional One Health

Background:

Regional One Health is a system of hospitals in Tennessee with a very rich history. Founded in 1829, Memphis Hospital (now Regional One Health) started with an investment of only $3,300 ($109k in today's terms). Initially, the hospital was designed to contain and control the spread of disease from hundreds of travelers coming into Memphis via the Mississippi River and has since changed with the times. For instance, during the Civil War, Memphis Hospital was turned into a military hospital. In the 1950s, additions were made to help serve the African American community and in the 1960s, other investments were made to reduce infant mortality. Later, in the 1980s, a burn center was added, and Memphis hospital transformed its name to The Med.

Finally, in 2014, The Med further transformed into Regional One Health. As times have changed, so has the Memphis Hospital to serve an ever changing community.

Furthermore, not only has Regional One Health adapted with time, but also it has expanded. Boasting over 2,000 employees, Regional One Health has several niche departments in order to provide care to those in need. It has departments such as: oncology, pediatrics, a burn center, a Level 1 trauma center and much more. More specifically, the Level 1 Trauma Center, named the Elvis Presley Trauma Center, is the only Level 1 trauma center within a 150 mile radius of the location. For instance, if someone is in a serious car accident or falls from a great height, Regional One Health is the closest option to treat such injuries.

With all the department expansion, nurses play a vital role in the operations and care of Regional One Health patients. Often, nursing students will do their internship at Regional One Health before graduating from various nursing schools and working full time at various health organizations. While there is a system in place to hire nurses to various departments, there is room for improvement and optimization. Many departments have vacancies that need to be filled, but that needs to be optimized with student **graduation dates.**

Nursing Staffing Process:

- First, nurses go to nursing school where they develop the foundational skills needed
- They will do an internship at a hospital where they will be assigned a department
- After graduating from school, nurses can then apply to different healthcare facilities
- Nurses can later tell their supervisors if they prefer a different department

Objectives:

1. Using data on department vacancies and nursing graduation dates, create a dashboard to show which areas have the highest vacancies, which departments are impacted the most by those vacancies and show why the problem is severe.

2. Either in the same dashboard or a new one, create a solution tool to best match nurses with departments based on department preference and nurse performance scores.

3. Extra Credit: Additionally, assuming there is no attrition, show a forecast tool of when each department will be filled to capacity

Clients:

- **Dr. Reginald Coopwood (President and CEO of Regional One Health)**
  - Dr. Reginald Coopwood initially had a hard time getting Domo into Regional One Health. Like any matured industry, people at first were resistant to change. However Dr. Coopwood was tenacious and kept asking leadership to imagine what they could do with better data. Soon, the finance department and Center for Performance Improvement gave Domo a try and ran with it. Over 6 years, Regional One Health has granted over 200 Domo licenses to staff and C-suite executives. As more and more teams became interested in data, a new branch was spun off called Regional One Health Solutions.

- **Jani Radhakrishnan (CEO of Regional One Health Solutions)**
  - Jani started as the Director of Regional One Health Solutions and is now the CEO. This is essentially internal consulting where the department will look at data to not only help Regional One Health, but also outside organizations.

- **Linda Hughlett (Chief Nursing Officer of Regional One Health)**
  - Linda is a key nursing leader in the community. Her role is to ensure nursing operations are at their optimal performance. In addition to optimizing schedules and staffing, Linda is also responsible for making sure Regional One nurses have the proper tools and education needed to succeed.

- **Nicole LeMieux (Director of Nursing Support and Educational of Regional One Health)**
  - Nicole's role is to develop and implement programs around nursing education so that nursing students are best prepared for after school. Her duty is to have a close relationship with both nurses and departments to ensure the best fit.

Datasets:

- **Department Dataset**:
  - This dataset contains a list of all the departments within Regional One Health along with the maximum number of nurses they are allowed to have, the number of nurses they currently have and count of vacant positions.

- **Nursing Dataset:**
  - This dataset contains a list of nurse interns/ students. It includes their student ID, names, graduation date, performance score(1= Needs significant improvement, 10 = Extremely gifted) and graduation dates.

- **Budget Dataset:**
  - This dataset contains how much each department is allowed to spend on full time (FTE) nurses per year. This includes already existing nurses.

Helpful resources:

Regional One Health Locations in Memphis, TN