

Healthcare Use Case

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Human Capital Management – Impact of Turnover on Patient Safety

Nurses provide a critical component of quality clinical care. While human capital management (HCM) is used to attract and hire potentially excellent employees, effective HCM holds employees accountable to specific goals and encourages continuous improvement and talent development. One oft-cited study suggests organizations with a low turnover rate have between a 20-28% better adjusted mortality index and a 21-24% better severity-adjusted length of stay when compared to healthcare organizations with moderate to high turnover rates (VHA, 2002).

Given that a number of variables impact quality of care in this high-intensity environment, organizations must be able to study the impact of individual nurse efficacy and potential, staffing effectiveness in maintaining nurse-to-patient ratios, and any patterns that might be observing regarding nursing unit turnover and patient safety.



Affected Job Capacities

The various job roles affected by this use case include but are not limited to:

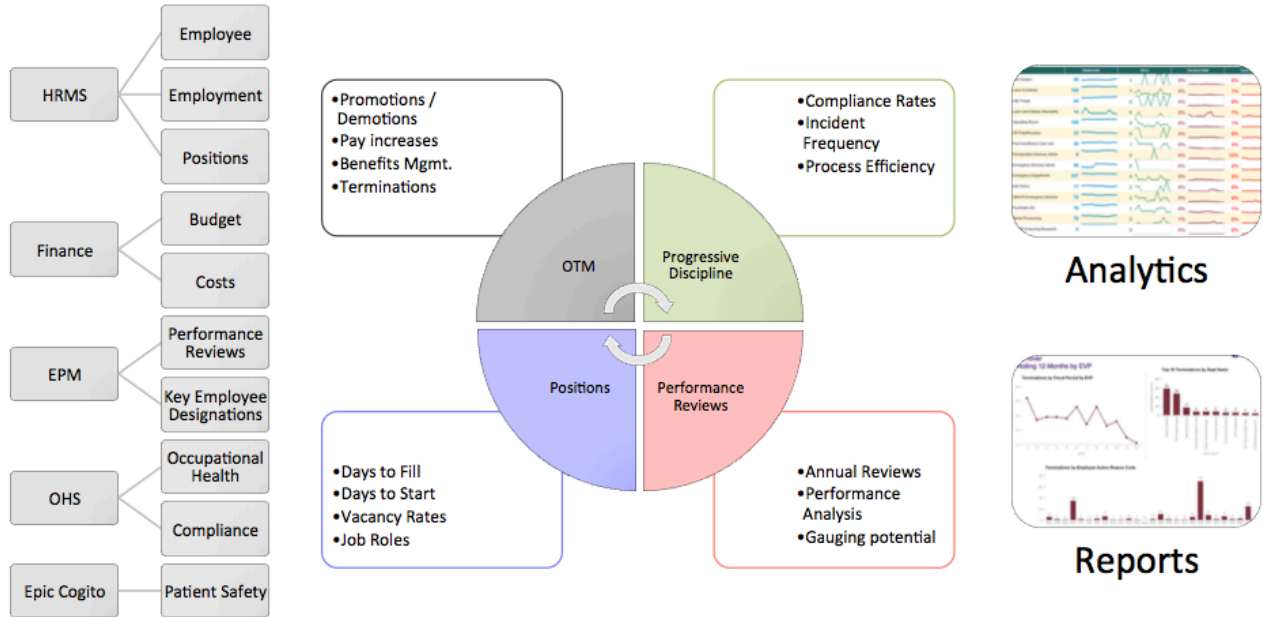
- Chief Nursing Officer
- Talent Management Director
- Chief Quality Director
- Chief Patient Safety Director
- Finance Director
- Nursing Managers (Staffing)

Use Case Example

While the effects of nurse staffing on quality of care and the cost of nurse retention versus nurse turnover have been well studied, few studies exist to examine the correlation between nurse unit turnover and patient safety and/or quality of care. One such study found that a 10-percentage point increase in nurse turnover results in a 19% increase in the number of note deficiencies in annual regulatory surveys (Upjohn, 2016).

The organization used as a basis for this specific use case is a large county hospital. Using the system and processes detailed below, they determined that their nurse residents were experiencing a higher than normal turnover, particularly for those with two to four years of service within certain departments, which was negatively impacting patient safety as well as an increase in the number of blood/bodily fluid exposure incidents. Equipped with this information, the office of the CNO and Talent Management launched a special project to focus on specific a specific set of individuals with an increased likelihood of turnover to take proactive steps to mitigate the impact.

Primary Information Flow



The diagram above illustrates the types of information made available from various systems and how they evolve into key metrics. Using the combined set of metrics presents a powerful tool for analysis to examine scenarios at a detailed level by years of service, job role, department etc.

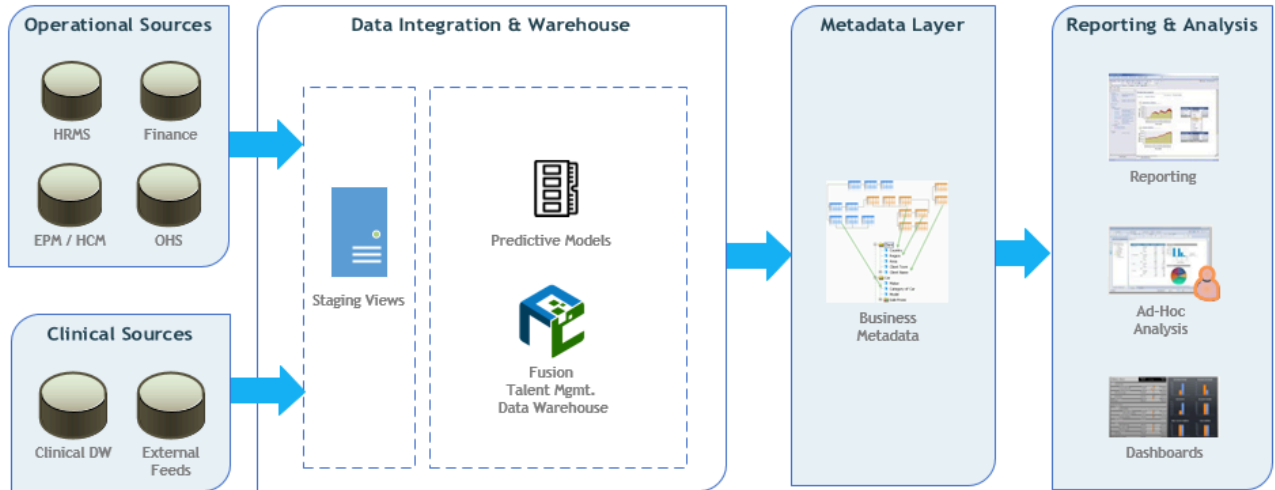
Such scenarios can include:

- Impact of turnover on patient safety and quality of care
- Patterns in employee turnover
- Advantages / disadvantages of retention vs. turnover
- Efficacy of performance appraisal and progressive discipline processes
- Identifying key employees and patterns that increase likelihood of retention and/or turnover

Reuse Opportunity of Use Case

This same use case applies to physicians and potential turnover due to retirement, residents, and other roles that facilitate quality care. The information makes the analysis possible to identify and address potential issues adversely impacting patient safety, length of stay, etc.

Use Case Model Data Flow diagram



Acronyms	
•	HRMS – Human Resources Mgmt. System
•	EPM – Enterprise Performance Mgmt.
•	HCM – Human Capital Mgmt.
•	OHS – Occupational Health & Safety

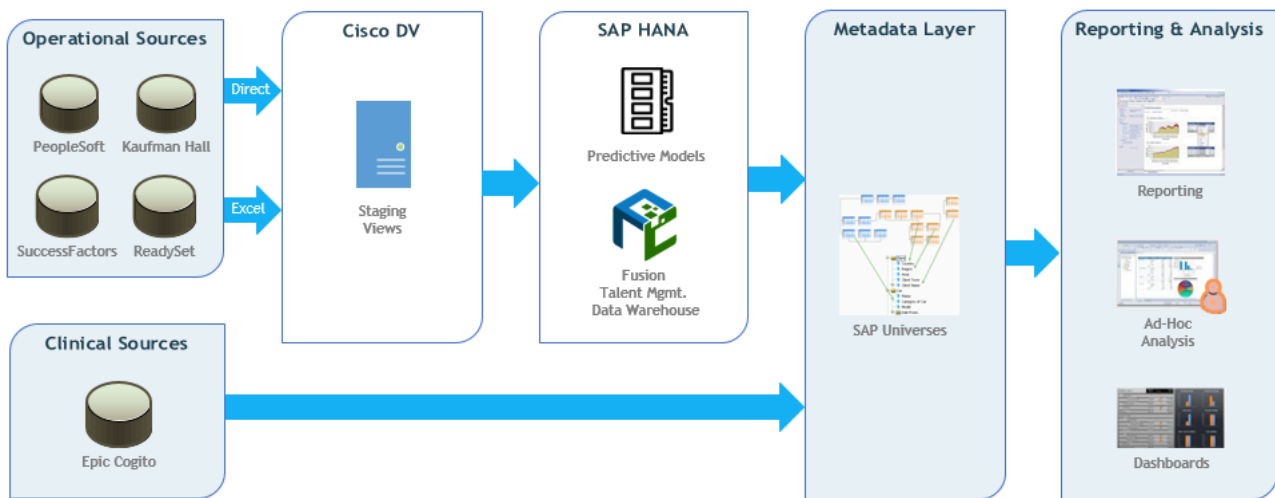
HRMS: Position-based, with employee demographics, transaction history (hires, terminations, promotions, etc.), payroll, benefits administration, etc. used to support day-to-day human resource processes.

EPM: Performance appraisal and progressive discipline information to gauge employee productivity, efficiency, and progress.

HCM: Contains licensing, learning, recruitment, etc. information to support talent management activities and succession planning.

OHS: Vaccinations and regulatory testing (TB, respiratory fitness, etc.) compliance, and blood and bodily fluid exposure incidents.

Technology Architecture





References

VHA, Inc. (2002) *The Business Case for Workforce Stability*. Retrieved from:

<https://www.leg.state.nv.us/Session/72nd2003/Interim/StatCom/HealthCareDelivery/exhibits/11617K.pdf>

Upjohn Institute. (2016) *The Impact of Nurse Turnover on Quality of Care and Mortality in Nursing Homes: Evidence from the Great Recession*. Retrieved from:

http://research.upjohn.org/cgi/viewcontent.cgi?article=1267&context=up_workingpapers