## Analytic Hierarchy Process (AHP) – decision making process in health care case study.

Kamal Gella, Melissa Curry, Rebecca Hontz, Christine Shope, Enrique Mu (Faculty Sponsor)

Carlow University

3333 Fifth Avenue

Pittsburgh, PA 15213

{kvgella, mcurry, rmhontz, clshope}@live.carlow.edu

## Abstract.

The Analytic Hierarchy Process (AHP) - a multiple criteria decision-making tool – is used in decisionmaking process. Authors have used AHP to evaluate different options to hire health care workers -Physician, Nurse Practitioner, and Physician Assistant *– and make the right decision for the organization. The* organization faced an increasing demand to see patients. The criteria that are used to evaluate the health care providers was cost, patient satisfaction, patient outcome, and education. Super Decisions (2015) is used for analysis, synthesis, and decisionmaking based on the analytical, hierarchy process This paper describes the *(AHP) methodology.* synthesis process and the sensitive analysis that led to the final decision on hiring the health care worker.

Keywords. AHP, decision-making, health care, hiring.

## Acknowledgments

Dr. Enrique Mu, Faculty Sponsor

Dr. Howard Stern, Student Advisor

Dr. Susan Rubisch-Gisler, Chair, Department of Business Management, Accounting, and Ethics, College of Arts and Sciences

## References

Agency for Healthcare Research and Quality. (2015, July). Types of health care quality measures. Retrieved February 06, 2021, from https://www.ahrq.gov/talkingquality/measures/types.h tml

American Association of Nurse Practitioners. (2021, January 1). State practice environment. Retrieved February 06, 2021, from https://www.aanp.org/advocacy/state/state-practiceenvironment

American Association of Nurse Practitioners. (2020). Quality of nurse practitioner practice. Retrieved February 06, 2021, from https://www.aanp.org/advocacy/advocacyresource/position-statements/quality-of-nursepractitionerpractice#:~:text=Research%20has%20found%20that %20patients,under%20the%20care%20of%20physici

ans Brown, B., & Hansmann, J. (2018, November 19). The Healthcare Cost Problem and How to Control It. Health Catalyst.

https://www.healthcatalyst.com/healthcare-costproblem-how-to-control-it.

Delaronde, S. (2019, September 25). What is most important to patients: Convenience, cost or quality? Retrieved February 13, 2021, from https://www.3mhisinsideangle.com/blog-post/what-ismost-important-to-patients-convenience-cost-orquality/

Donald, F. C., & McCurdy, C. (2002, October 1). Review: nurse practitioner primary care improves patient satisfaction and quality of care with no difference in health outcomes. Evidence-Based Nursing. https://ebn.bmj.com/content/5/4/121. Jackson, Sara (2011, June 28) Study: Patients prefer Nurse Practitioners over Physicians. Retrieved February 6, 2021 from Study: Patients prefer NPs over physicians | FierceHealthcare

LaPointe, J. (2019, September 19). Improving Patient Outcomes Surpasses Reducing Cost as Top Priority. RevCycleIntelligence.

https://revcycleintelligence.com/news/improvingpatient-outcomes-surpasses-reducing-cost-as-toppriority.

Leach, B., Gradison, M., Morgan, P., Everett, C., Dill, M. J., & de, O. J. S. (2018). Patient preference in primary care provider type. Healthcare (Amsterdam, Netherlands), 6(1), 13–16. https://doi.org/10.1016/j.hjdsi.2017.01.001

PayScale. (2020, July 20). Average family nurse Practitioner (np) with infectious DISEASE knowledge Skills Salary. Retrieved February 06, 2021, from

https://www.payscale.com/research/US/Job=Family\_ Nurse\_Practitioner\_(NP)/Salary/b558e4a5/ Infectious-Disease-Knowledge

PayScale. (2021, January 11). Average physician / doctor, infectious disease salary. Retrieved February 06, 2021, from

https://www.payscale.com/research/US/Job=Physicia n\_%2F\_Doctor%2C\_Infectious\_Disease/Salary