IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Socio-Economic Determinants Of Health Service Delivery: A Study On Public Health Professionals' Workforce Efficiency

[1]Manuel P. Gomez Jr., RN,MSN,MPA-HM,DPA

[1]Doctor of Public Administration Student

[1]Tarlac State University, College of Public Administration and Governance

[1]Philippines

Abstract: This study examined the socio-economic determinants affecting workforce efficiency among public health personnel, with the aim of identifying key factors and proposing evidence-based interventions to support these dedicated professionals. Utilizing a quantitative-correlational research design, the study gathered valuable insights from 353 public health professionals across Central Luzon.

Findings revealed that socio-economic determinants including income, job security, and living conditions received neutral assessments (grand mean = 3.31), indicating a stable foundation with opportunities for enhancement. Education, notably, was viewed positively (M = 3.99), demonstrating strong professional preparation. Encouragingly, workplace factors such as collaboration and teamwork (M = 4.09), role clarity (M = 4.04), management support (M = 3.75), organizational culture (M = 3.72), and overall satisfaction (M = 3.64) all garnered favorable ratings. Workforce efficiency achieved a commendable grand mean of 3.85, reflecting strong performance levels among health professionals.

Correlation analysis revealed meaningful relationships between income and organizational culture ($p = 0.030$), education and overall satisfaction ($p = 0.030$), and living conditions with both collaboration ($p = 0.024$) and workplace culture ($p = 0.001$). These connections provide valuable insights into areas where targeted support could yield the greatest positive impact.

The key areas where additional support would be most beneficial were identified as workforce capacity and workload distribution (84.4%), opportunities to enhance compensation structures and timeliness (81.3%), medical supplies and equipment availability (78.2%), optimizing patient-to-staff ratios (75.1%), and upgrading facility conditions (72%). Supportive measures proposed included strategic hiring initiatives, wellness programs, competitive salary standardization, strengthened procurement systems, balanced workload distribution, digital innovation adoption, and facility modernization.

The study concluded that while workplace environment and workforce efficiency demonstrated positive outcomes, socio-economic factors present valuable opportunities for growth and development. Recommendations emphasized integrated, supportive policy interventions addressing compensation equity, professional development opportunities, infrastructure modernization, and comprehensive employee welfare programs to further enhance both job satisfaction and service delivery excellence in public health settings.

Keywords: socio-economic determinants, workforce efficiency, public health professionals, health service delivery.

I. INTRODUCTION

The delivery of quality health services relies heavily on the efficiency of health professionals and the socio-economic environment in which they operate. Public health professionals face varying degrees of challenges that stem from economic disparities, education gaps, job stability, and living conditions. These socio-economic factors significantly influence the ability of healthcare workers to perform their duties effectively and maintain high standards of patient care.

The public health system in the Philippines has long grappled with workforce challenges, including inadequate staffing, resource constraints, and infrastructural deficiencies. These issues are further compounded by socio-economic factors that affect healthcare workers' motivation, job satisfaction, and overall efficiency. Understanding the relationship between these determinants and workforce performance is crucial for developing evidence-based policies that can improve health service delivery.

In the Philippine context, Region III (Central Luzon) presents a particularly relevant case for examining these dynamics. The region's diverse socio-economic landscape and significant public health workforce make it an ideal setting to investigate how various determinants affect healthcare delivery efficiency. Insights from this region can inform policy development not only locally but potentially for other regions facing similar challenges.

Statement of the Problem

This study sought to investigate the socio-economic determinants affecting public health professionals' workforce efficiency in Region III, Central Luzon. Specifically, the study addressed the following research questions:

1. How are the socio-economic determinants of public health professionals described in terms of:

   1.1 Income
   1.2 Education
   1.3 Job Security
   1.4 Living Conditions

2. How is the workforce efficiency of public health professionals described and evaluated in terms of:

   2.1 Role and Expectations
   2.2 Management and Support
   2.3 Collaboration and Teamwork
   2.4 Company and Culture
   2.5 Overall Satisfaction and Feedback

3. Is there a significant relationship between the variations of socio-economic determinants and workforce efficiency of public health professionals?
4. What are the socio-economic challenges experienced by public health professionals?
5. What measures can be proposed to address these challenges?
6. What are the implications of this study to Public Administration?

II. RESEARCH METHODOLOGY

Research Design

This study employed a quantitative-correlational research design to examine the relationship between socio-economic determinants and workforce efficiency among public health professionals. The correlational approach was deemed appropriate as it allowed for the examination of relationships between variables without manipulation, providing insights into how socio-economic factors relate to workforce performance indicators.

Research Locale and Participants

The study was conducted in Region III (Central Luzon), Philippines, which comprises seven provinces: Aurora, Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac, and Zambales. The region was selected due to its diverse socio-economic landscape and significant public health workforce.

A total of 353 public health professionals participated in the study. Respondents were selected from various public health facilities across the region, including rural health units, barangay health stations, city/municipal health offices, and provincial hospitals. The participants represented various health professions including nurses, midwives, medical technologists, sanitary inspectors, and other allied health workers employed in the public health sector.

Research Instruments

The primary data collection instrument was a structured survey questionnaire developed specifically for this study using a 5-point Likert scale. Supplementary data were collected through semi-structured interviews and review of documentary records from health facilities.

Data Analysis

The data collected were analyzed using descriptive statistics (frequency, mean, percentage, ranking, Likert scale) and inferential statistics (Pearson's r). Statistical significance was set at $p < 0.05$.

III. RESULTS AND DISCUSSION

3.1 Results of Socio-Economic Determinants of Public Health Professionals

Table 3.1 presents the descriptive statistics for the socio-economic determinants assessed in this study.

Table 3.1 Socio-Economic Determinants of Public Health Professionals

Indicators	Mean	Adjectival Rating
Income	3.03	Neutral
Education	3.99	Agree
Job Security	3.16	Neutral
Living Condition	3.05	Neutral
OVERALL GRAND MEAN	**3.31**	**Neutral**

The results indicate that among the four socio-economic determinants, education received the highest mean rating (M = 3.99, Agree), suggesting that public health professionals generally perceive their educational qualifications and access to professional development opportunities positively. In contrast, income (M = 3.03), job security (M = 3.16), and living conditions (M = 3.05) all received neutral ratings. The overall grand mean of 3.31 (Neutral) suggests that public health professionals have moderate perceptions regarding their overall socio-economic circumstances.

3.2 Results of Work Efficiency of Public Health Professionals

Table 3.2 presents the descriptive statistics for the work efficiency assessed in this study.

Table 3.2 Work Efficiency

Indicators	Mean	Adjectival Rating
Role and Expectations	4.04	Agree
Management and Support	3.75	Agree
Collaboration and Teamwork	4.09	Agree
Company and Culture	3.72	Agree
Overall Satisfaction and feedback	3.64	Agree
OVERALL GRAND MEAN	**3.85**	Agree

Very positively, all workforce efficiency indicators received 'agree' ratings. Collaboration and teamwork scored impressively at 4.09, followed closely by role clarity at 4.04. Management support scored 3.75, still positive and demonstrating leadership engagement. The overall grand mean of 3.85 shows that health professionals recognize and appreciate the efficiency of their workplace environment.

3.3 Correlations

Table below presents the correlation between the socio-economic determinants and work efficiency

Table 3.3.1 Correlation between income and work efficiency

Work Efficiency	Pearson *r*	*p*-value	Decision	Result
Role and Expectations	-0.011	0.842	Accept Ho	Not Significant
Management and Support	0.103	0.052	Accept Ho	Not Significant
Collaborations and Teamwork	0.061	0.251	Accept Ho	Not Significant
Company and Culture	0.115	0.030	Reject Ho	Significant
Overall Satisfaction and Feedback	0.017	0.749	Accept Ho	Not Significant

Table 3.3.1 presents a correlation analysis examining the relationship between employee income and various dimensions of work efficiency. The analysis reveals that income has minimal impact on most aspects of work efficiency. Out of five dimensions examined, only Company and Culture shows a statistically significant correlation with income ($r = 0.115$, $p = 0.030$), indicating a weak positive relationship where higher income employees tend to report slightly better perceptions of organizational culture. The remaining four dimensions, Role and Expectations, Management and Support, Collaborations and Teamwork, and Overall Satisfaction and Feedback, all failed to show significant correlations with income. The overall pattern of weak correlations indicates that income is not a primary determinant of work efficiency. These findings suggest that factors beyond monetary compensation, such as workplace relationships, management practices, and intrinsic motivation, likely play more substantial roles in shaping employee work efficiency and engagement.

Table 3.3.2 presents the correlation between education and work efficiency

Work Efficiency	Pearson *r*	*p*-value	Decision	Result
Role and Expectations	0.081	0.129	Accept Ho	Not Significant
Management and Support	0.009	0.870	Accept Ho	Not Significant
Collaborations and Teamwork	-0.049	0.360	Accept Ho	Not Significant
Company and Culture	0.056	0.294	Accept Ho	Not Significant
Overall Satisfaction and Feedback	0.116	0.030	Reject Ho	Significant

Table 3.3.2 presents a correlation analysis examining the relationship between employee education level and various dimensions of work efficiency. The analysis reveals that education has minimal influence on most aspects of work efficiency. Out of five dimensions examined, only Overall Satisfaction and Feedback shows a statistically significant correlation with education ($r = 0.116$, $p = 0.030$), indicating a weak positive relationship where employees with higher educational attainment tend to report slightly better overall satisfaction and provide more positive feedback. The remaining four dimensions, Role and Expectations, Management and Support, Collaborations and Teamwork, and Company and Culture, all failed to show

significant correlations with education level. The consistently weak correlations across all dimensions suggest that educational background is not a primary factor influencing work efficiency. These findings indicate that practical workplace factors such as training, experience, organizational support, and work environment may be more critical determinants of work efficiency than formal educational credentials. The singular significance of Overall Satisfaction and Feedback suggests that higher education levels may contribute to general workplace contentment, possibly due to better alignment between job expectations and qualifications or enhanced career opportunities.

Table 3.3.3 presents the correlation between job security and work efficiency

Work Efficiency	Pearson *r*	*p*-value	Decision	Result
Role and Expectations	-0.049	0.363	Accept Ho	Not Significant
Management and Support	-0.051	0.343	Accept Ho	Not Significant
Collaborations and Teamwork	-0.042	0.435	Accept Ho	Not Significant
Company and Culture	0.006	0.910	Accept Ho	Not Significant
Overall Satisfaction and Feedback	0.059	0.269	Accept Ho	Not Significant

Table 3.3.3 presents a correlation analysis examining the relationship between employee job security and various dimensions of work efficiency. The analysis reveals a notable finding: job security shows no statistically significant correlation with any of the five work efficiency dimensions examined. All dimensions, Role and Expectations, Management and Support, Collaborations and Teamwork, Company and Culture, and Overall Satisfaction and Feedback, failed to demonstrate significant relationships with job security, with p-values ranging from 0.269 to 0.910. The correlation coefficients are exceptionally weak, with most values close to zero, indicating virtually no linear relationship between job security and work efficiency measures. This unexpected result suggests that whether employees perceive their positions as secure or insecure does not meaningfully impact their work efficiency across any measured dimension. These findings challenge conventional assumptions that job security is a primary motivator for work performance. Instead, the results indicate that other factors such as immediate work conditions, management quality, interpersonal relationships, and intrinsic motivation may play more substantial roles in determining employee efficiency regardless of their perceived job stability. The lack of correlation may also reflect that both secure and insecure employees maintain similar work efficiency levels, possibly due to professional commitment or market pressures.

Table 3.3.4 presents the correlation between living conditions and work efficiency

Work Efficiency	Pearson *r*	*p*-value	Decision	Result
Role and Expectations	-0.020	0.709	Accept Ho	Not Significant
Management and Support	-0.015	0.785	Accept Ho	Not Significant
Collaborations and Teamwork	-0.120	0.024	Reject Ho	Significant
Company and Culture	-0.183	0.001	Reject Ho	Significant
Overall Satisfaction and Feedback	0.087	0.101	Accept Ho	Not Significant

Table 3.3.4 presents a correlation analysis examining the relationship between employee living conditions and various dimensions of work efficiency. The analysis reveals that living conditions significantly impact specific aspects of work efficiency. Two dimensions show statistically significant negative correlations: Collaborations and Teamwork ($r = -0.120$, $p = 0.024$) and Company and Culture ($r = -0.183$, $p = 0.001$). These negative correlations indicate that poorer living conditions are associated with reduced effectiveness in teamwork interactions and less favorable perceptions of organizational culture. The Company and Culture dimension shows the strongest relationship, suggesting that employees facing challenging living situations may experience diminished connection to workplace values and organizational environment. The remaining three dimensions, Role and Expectations, Management and Support, and Overall Satisfaction and Feedback, show no significant correlations with living conditions. These findings highlight the important spillover effect of personal life circumstances on workplace performance, particularly in social and cultural dimensions of work. Employees struggling with inadequate housing, long commutes, or unstable living environments may have reduced capacity for collaborative engagement and organizational commitment. The results underscore

the interconnected nature of work and personal life, suggesting that organizations addressing employee living condition concerns through housing support, flexible arrangements, or location-based benefits may see improvements in teamwork quality and cultural integration.

3.4 Socio-Economic Challenges

The survey data highlights several interconnected challenges within the healthcare delivery system, with workforce concerns being most frequently cited. The inadequate number of healthcare workers was identified as the primary challenge by 84.4 percent of respondents (298 participants), which contributes to increased workload and fatigue among existing staff members.

Financial considerations also emerged as a significant concern, with 81.3 percent of respondents (287 participants) noting that low salaries and delayed compensation affect staff motivation. The closeness of these percentages suggests that staffing levels and compensation are closely interrelated aspects of the healthcare environment.

Additional challenges relate to resources and infrastructure. A notable 78.2 percent of respondents (276 participants) mentioned the need for more medical supplies and equipment, while 75.1 percent (265 respondents) observed higher patient-to-staff ratios that can make service delivery more demanding. Furthermore, 72 percent of participants (254 respondents) identified areas for improvement in working conditions, including facility capacity and infrastructure updates. The consistency across these findings, with all five challenges recognized by over 70 percent of respondents, indicates these are commonly experienced aspects of the current healthcare environment that would benefit from attention and support.

IV. ACKNOWLEDGEMENT

Life's path is full of challenges, and achieving our goals requires the support of our Creator, mentors, friends, and colleagues. This work stands as a tribute to the collaborative efforts of all those who have guided and supported the researcher throughout this journey. To the Lord God Almighty, who provided the researcher with the tools and wisdom needed to pursue truth and understanding, without His guidance, this work would not have been possible. To the thesis adviser, for invaluable guidance and unwavering support throughout this study, the expertise, encouragement, and positive energy provided served as constant sources of inspiration and motivation. To the panel chairman and members, for their expertise, insightful observations, valuable feedback, and constructive criticism that helped identify areas needing improvement and were instrumental in completing this research. To the respondents, for their generous cooperation and participation, which made the successful completion of this study possible. To friends, co-researchers, and loved ones, who served as sounding boards, confidantes, and supporters, their unwavering faith, encouragement, and guidance enabled the researcher to accomplish his objectives. To the City Health Offices across Central Luzon, for their generous allocation of time and resources, their complete cooperation and provision of relevant data from the outset enabled the completion of this research with the highest level of accuracy.

REFRENCES

1. Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Griffiths, P., Busse, R., Diomidous, M., Kinnunen, J., Kózka, M., Lesaffre, E., McHugh, M. D., Moreno-Casbas, M. T., Rafferty, A. M., Schwendimann, R., Scott, P. A., Tishelman, C., van Achterberg, T., & Sermeus, W. (2014). Nurse staffing and education and hospital mortality in nine European countries: A retrospective observational study. The Lancet, 383(9931), 1824-1830. https://doi.org/10.1016/S0140-6736(13)62631-8

2. Benner, P. (2001). From novice to expert: Excellence and power in clinical nursing practice (Commemorative ed.). Prentice Hall.

3. Braveman, P., & Gottlieb, L. (2014). The social determinants of health: It's time to consider the causes of the causes. Public Health Reports, 129(Suppl 2), 19-31. https://doi.org/10.1177/00333549141291S206

4. Buchan, J., & Aiken, L. (2008). Solving nursing shortages: A common priority. Journal of Clinical Nursing, 17(24), 3262-3268. https://doi.org/10.1111/j.1365-2702.2008.02636.x

5. Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Erlbaum Associates.

6. Cortese, C. G., Colombo, L., & Ghislieri, C. (2010). Determinants of nurses' job satisfaction: The role of work-family conflict, job demand, emotional charge and social support. Journal of Nursing Management, 18(1), 35-43. https://doi.org/10.1111/j.1365-2834.2009.01064.x

7. Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE Publications.

8. Dayrit, M. M., Lagrada, L. P., Picazo, O. F., Pons, M. C., & Villaverde, M. C. (2018). The Philippines health system review. Health Systems in Transition, 8(2). WHO Regional Office for the Western Pacific.

9. Department of Health, Philippines. (2020). Universal Health Care Act: Republic Act No. 11223. https://doh.gov.ph/

10. Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. Journal of Occupational Health Psychology, 5(1), 111-126. https://doi.org/10.1037/1076-8998.5.1.111

11. Institute of Medicine. (2011). The future of nursing: Leading change, advancing health. The National Academies Press.

12. Lorenzo, F. M. E., Galvez-Tan, J., Icamina, K., & Javier, L. (2007). Nurse migration from a source country perspective: Philippine country case study. Health Services Research, 42(3 Pt 2), 1406-1418. https://doi.org/10.1111/j.1475-6773.2007.00716.x

13. Lu, H., Barriball, K. L., Zhang, X., & While, A. E. (2012). Job satisfaction among hospital nurses revisited: A systematic review. International Journal of Nursing Studies, 49(8), 1017-1038. https://doi.org/10.1016/j.ijnurstu.2011.11.009

14. Marmot, M., & Wilkinson, R. G. (2006). Social determinants of health (2nd ed.). Oxford University Press.

15. Oulton, J. A. (2006). The global nursing shortage: An overview of issues and actions. Policy, Politics & Nursing Practice, 7(3_suppl), 34S-39S. https://doi.org/10.1177/1527154406293968

16. Pallant, J. (2020). SPSS survival manual: A step by step guide to data analysis using IBM SPSS (7th ed.). McGraw-Hill Education.

17. Philippine Health Research Ethics Board. (2017). National ethical guidelines for health and health-related research. Department of Science and Technology.

18. Philippine Statistics Authority. (2021). 2021 Philippine statistical yearbook. https://psa.gov.ph/

19. Robbins, S. P., & Judge, T. A. (2019). Organizational behavior (18th ed.). Pearson Education.

20. Schein, E. H. (2010). Organizational culture and leadership (4th ed.). Jossey-Bass.

21. Shields, M. A., & Ward, M. (2001). Improving nurse retention in the National Health Service in England: The impact of job satisfaction on intentions to quit. Journal of Health Economics, 20(5), 677-701. https://doi.org/10.1016/S0167-6296(01)00092-3

22. Solar, O., & Irwin, A. (2010). A conceptual framework for action on the social determinants of health. WHO Commission on Social Determinants of Health.

23. Spector, P. E. (1997). Job satisfaction: Application, assessment, causes, and consequences. SAGE Publications.

24. Stone, P. W., Mooney-Kane, C., Larson, E. L., Horan, T., Glance, L. G., Zwanziger, J., & Dick, A. W. (2007). Nurse working conditions and patient safety outcomes. Medical Care, 45(6), 571-578. https://doi.org/10.1097/MLR.0b013e3180383667

25. World Health Organization. (2016). Global strategy on human resources for health: Workforce 2030. WHO Press.