



The Effectiveness of the Implementation of the Electronic Health Center Management Information System (SIMPUStronik) on the Performance of Health Workers at the West City Health Center

Mutiara Juniarshi A. Mohune^{1*}, Herlina Jusuf², Nikmatisni Arsad³

^{1,2,3}Fakultas Olahraga dan Kesehatan Universitas Negeri Gorontalo

Article Info

Article history:

Received 27 Jul, 2025

Revised 08 Oct, 2025

Accepted 14 Oct, 2025

Keywords:

SIMPUStronics, Effectiveness, Performance, Health Workers, Health Centers

ABSTRACT

The application of information technology as a health service is carried out at the Community Health Center (Puskesmas) so that along with the development of health service management needs, the government issued an Electronic Health Center Management Information System (SIMPUStronik) to mobilize work. The implementation of the Electronic Health Center Management Information System (SIMPUStronik) is the main need in the era of digitization of health services in Indonesia, especially in the West City Health Center as the health center with the highest accreditation in Gorontalo City. The implementation of SIMPUStronik at the West City Health Center has been going on since 2017, but it still faces various obstacles such as limited technology infrastructure, lack of training for health workers, and additional workload due to systems that have not been optimally integrated with existing workflows. The study used a quantitative approach with a total sampling technique, involving 55 health workers. Effectiveness is measured based on four main indicators, namely, target achievement, adaptability, user satisfaction, and responsibility. The results show that SIMPUStronik has high effectiveness in these four aspects, with the achievement of targets of 91%, adaptability of 91%, user satisfaction of 83%, and responsibility of 85%. The implementation of SIMPUStronik at the West City Health Center is very effective and has a positive impact on improving the performance of health workers. It is recommended for the West City Health Center to continue to be consistent in improving performance and monitoring the shortcomings of SIMPUStronics.

*Corresponding Author:

Mutiara Juniarshi A. Mohune

Fakultas Olahraga dan Kesehatan Universitas Negeri Gorontalo

*Email: mutiara1_s1kesmas@mahasiswa.ung.ac.id

INTRODUCTION

The application of information technology as a health service is carried out at the Community Health Center (Puskesmas) so that along with the development of health service management needs, the government issued the Electronic Health Center Management Information System (SIMPUStronik) to mobilize work (Abdul Rokim et al., 2023).

Based on the Decree of the Minister of Health (Kepmenkes) Number 128/Menkes/SK/II/2004, the Puskesmas Management Information System is an order/structure that presents information to assist the organizational decision-making process in the implementation of puskesmas management (Permenkes RI 2012). SIMPUS is useful for managing patient data from the patient registration process, patient registration, patient examination, and administration of patient drug intake.

Research by Agustina & Fanida (2016) The results showed that the implementation of the Electronic Health Center Management Information System (SIMPUStronik) at the Gantrung Health Center was considered effective, with the score of each sub-variable such as system quality, information, service, usage, user satisfaction, and net profit in the range of 61%–80%.

Puskesmas throughout Gorontalo City have in principle used E-puskesmas since 2017, but its implementation in each puskesmas has not been maximized. Based on the results of initial observations, the West City Health Center shows that, although the West City Health Center has implemented the e-Puskesmas system since 2017 and has plenary accreditation, its effectiveness still faces obstacles, especially internet connection disruptions that affect user performance. Therefore, an evaluation of the implementation of e-Puskesmas is needed so that the system can be more optimal in supporting the effectiveness and efficiency of health services.

This study measures the effectiveness of the implementation of SIMPUStronik based on four factors: target achievement, adaptability, user satisfaction, and responsibility. The results show that the effectiveness of the system can be assessed from the extent to which the target is achieved, the ability of health workers to adapt to the system, and user satisfaction with the ease and results of using the system.

From the above background description, the author is interested in conducting a research entitled "The Effectiveness of the Implementation of the Electronic Health Center Management Information System (SIMPUStronik) on the Performance of Health Workers in West City Health Centers"

METHOD

This type of research is a quantitative research. The population in this study is 55 health workers at the West City Health Center. The sample in this study amounted to 55 people, using the total sampling technique.

RESULT

Data Analysis

Table 1 Distribution of Health Workers Based on Target Achievement

Target Achievement	Frequency	
	n	%
Reached	44	80
Quite Attainable	11	20
Less Achieved	0	0
Not Achieved	0	0
Total	55	100

Source: Primary Data, 2025

Based on table 1 of the distribution of health workers for the achievement of the target, it shows that out of 55 health workers, there are 44 health workers (80%) who have an achieved category, and for health workers who have a sufficiently achieved category, as many as 11 health workers (20%).

Table 2 Distribution of Health Workers Based on Adaptability

Adaptability	Frequency	
	n	%
Adapt	46	83.6
Simply Adaptable	9	16.4
Lack of Adaptation	0	0
Not Adapting	0	0
Total	55	100

Source: Primary Data, 2025

Based on table 2 of the distribution of health workers for adaptability, it shows that out of 55 health workers, there are 46 health workers (83.6%) who have the adaptive category, while health workers who have the category of adaptability are 9 health workers (16.4%).

Table 3 Distribution of Health Workers Based on User Satisfaction

User Satisfaction	Frequency	
	N	%
Satisfied	29	52.7
Quite satisfied	24	43.6
Dissatisfied	2	3.6

Dissatisfied	0	0
Total	55	100

Source: Primary Data, 2025

Based on table 3 of the distribution of health workers for user satisfaction, it shows that out of 55 health workers, there are 29 health workers (52.7%) who have a satisfied category, health workers who have a fairly satisfied category as many as 24 (43.6%), and health workers who have a category of dissatisfaction as many as 2 (3.6%).

Table 4 Distribution of Health Workers Based on Responsibility

Responsibility	Frequency	
	n	%
Responsible	39	70.9
Quite Responsible	14	25.5
Lack of Responsibility	2	3.6
Irresponsible	0	0
Total	55	100

Source: Primary Data, 2025

Based on table 4 of the distribution of health workers for responsibility, it shows that out of 55 health workers, there are 39 health workers (70.9%) who have the responsible category, 14 health workers (25.5%) who have the responsible category who have a less responsible category as many as 2 (3.6%).

Table 5 Distribution of Health Workers Based on Health Worker Performance

Responsibility	Frequency	
	n	%
Responsible	39	70.9
Quite Responsible	14	25.5
Lack of Responsibility	2	3.6
Irresponsible	0	0
Total	55	100

Source: Primary Data, 2025

Based on table 5 of the distribution of performance health worker respondents shows that out of 55 health workers, there are 32 health workers (58.2%) who have a very satisfactory category, 23 health workers (41.8%) who have a satisfactory category.

Performance of Health Workers	Frequency	
	N	%
Very Satisfying	32	58.2
Satisfying	23	41.8
Unsatisfactory	0	0
Very Unsatisfactory	0	0
Total	55	100

Table 6 Results of Measuring the Effectiveness of the Implementation of the Electronic Health Center Management Information System (SIMPUStronik) on the Performance of Health Workers in the West City Health Center

Effectiveness of the Implementation of the Electronic Health Center Management Information System (SIMPUStronik)	Percentage	
	%	Category
Target Achievement	91	Highly Effective

Effectiveness of the Implementation of the Electronic Health Center Management Information System (SIMPUStronic)	Percentage	
	%	Category
Adaptability	91	Highly Effective
User Satisfaction	83	Highly Effective
Responsibility	85	Highly Effective

Source: Primary Data 2025

Based on table 6, it is shown that for measuring the effectiveness of the implementation of the electronic health center management information system (SIMPUStronic) on the performance of health workers at the West City Health Center, it is seen from the achievement of targets (91.7%), adaptability (91%), user satisfaction (83.1%) and from responsibility (85%) so that it can be concluded that all of these indicators are in the category of "very effective".

DISCUSSION

The effectiveness of achieving the target of implementing the electronic health center management information system (SIMPUStronic) on the performance of health workers

The implementation of the Electronic Health Center Management Information System (SIMPUStronic) at the West City Health Center has proven to be very effective in terms of achieving targets, with an effectiveness score of 91%. As many as 80% of health workers stated that the target had been achieved, which was directly proportional to the improvement in their performance.

These results show that the higher the target achievement, the better the performance of health workers. Productivity increases because the system helps speed up service and improve discipline. This is in accordance with the theory of Tangkilisan (2005) that the achievement of targets reflects the success of the organization in realizing its goals. This research is also in line with Kharimah (2023) who stated that SIMPUStronic is effective in supporting health workers through faster and more efficient medical record features.

The effectiveness of adaptability in the implementation of the electronic health center management information system (SIMPUStronic) on the performance of health workers

The implementation of SIMPUStronic at the West City Health Center showed very high effectiveness in the aspect of adaptability, with a score of 91%. Most healthcare workers (83.6%) are able to adapt to the new system that was previously manual to electronic. Health workers with a high level of adaptation tend to have very satisfactory performance. This adaptability reflects the skill in using SIMPUStronic features that are practical, real-time, and relevant to the needs of modern healthcare. This finding is supported by Tangkilisan (2005) who states that employee flexibility in facing system changes is an indicator of organizational effectiveness.

The effectiveness of user satisfaction of the implementation of the electronic health center management information system (SIMPUStronic) on the performance of health workers

The implementation of SIMPUStronic at the West City Health Center is considered very effective in terms of user satisfaction, with a score of 83%. Most healthcare workers (52.7%) are satisfied with the system, although some (43.6%) are only satisfied and 3.6% are dissatisfied. Health workers who are satisfied with this system tend to have satisfactory to very satisfactory performance. This satisfaction arises because the system helps improve work discipline and makes it easier to achieve performance that contributes to additional income (TPP). However, the dissatisfaction of a small number of health workers is caused by limited facilities, such as hardware.

This finding is in accordance with the theory of Tangkilisan (2005), which states that job satisfaction encourages employee motivation and discipline. This is also supported by Umar (2022) who emphasizes that the level of user satisfaction is the main indicator of the success of health information systems.

The Effectiveness of the Responsibility of the Implementation of the Electronic Health Center Management Information System (SIMPUStronic) on the Performance of Health Workers

The implementation of SIMPUStronic in the West City Health Center is considered very effective from the aspect of responsibility, with a percentage of 85%. Most health workers (70.9%) show a high sense of responsibility in using this system, although there are some who are only sufficient or less responsible.

Health workers who have high responsibility generally show satisfactory to very satisfactory performance. The implementation of Siransija's application-based attendance is also considered to contribute to increasing discipline and commitment to task completion.

This sense of responsibility is reflected in the ability of health workers to manage data and administration accurately and complete work according to procedures. However, there are still individuals who are less responsible, even if their performance results remain good, which signals the need for increased collective work awareness.

This finding is in accordance with the theory of Tangkilisan (2005) which states that responsibility is reflected in the ability to complete tasks completely according to the provisions. This is also strengthened by research by Astuti (2022) who emphasizes that understanding of duties and consequences for violations is an important foundation in fostering employee responsibility.

CONCLUSION

Based on the results of the study, it can be concluded: The following conclusions are more concise: 1) The achievement of targets through SIMPUStronik is very effective (91%). 2) The adaptation of health workers to SIMPUStronik is very effective (91%). 3) User satisfaction with SIMPUStronik is very effective (83%). 4) The responsibility of health workers increases with SIMPUStronik very effectively (85%).

REFERENCES

Abdul, R., Daniel, P., Nanda, R & Laela, I. 2023. Evaluation of the Health Center Management Information System (Simpus) with the Hot-Fit Method at the Cakung District Health Center. *Journal of Innovation Research and Knowledge*, 2(11), 4295–4304. <https://doi.org/10.53625/jirk.v2i11.5259>

Agustina, U, N & Fanida, E, H. 2016. The Effectiveness of the Implementation of the Electronic Health Center Management Information System (Simpustronic) at the Gantrung Health Center, Kebonsari District, Madiun Regency. Publishing, 4(3), 1–10. <http://jurnalmahasiswa.unesa.ac.id/index.php/publika/article/view/14660>

Astuti, H & Sujarwoko. 2022. The Effectiveness of the Implementation of the Puskesmas Management Information System Program at the Mataram Health Center in 2022. *Nusadaya Journal of Multidisciplinary Studies*, 1(4), 32–38.

Kharimah, M., Veronica. S. A & Eko, Y. 2023. The Effectiveness of Information Systems and Management of Puskesmas (Simpus) in Puskesmas Tiris, 430–436.

Tangkilisan, H. N. S. (2005). Public Management. In Jakarta. Gramedia Widiasarana Indonesia.

Umar, M. F., & Maksum, T. S. (2022). Effectiveness of the Implementation of Health Information Systems Based on the Delone and McLean Model. 8(3), 512–519.

Tangkilisan, H. N. S. (2005). Public Management. In Jakarta. Gramedia Widiasarana Indonesia.