

---

## Case Study of the Institutional Management Policy National Laboratory Post Transition the National Institute of Health Research and Development (NIHRD)

---

Fauzul Muna<sup>1</sup>, Edy Sutrisno<sup>2</sup>, Bambang Giyanto<sup>3</sup>

### *Abstract:*

*This research was conducted to identify institutional structuring policy in National Laboratory, include external factor that influence the implementation of these policies and the strategies required by the National Laboratory after the institutional structuring process. The method used in this research is qualitative method, namely data collection through case study and in-depth interviews also conducted PEST Analysis. The results of this research show that the institutional management policy at the National Laboratory has not work well due to changes in business process which have changed all organizational tasks and functions including duties, structure and human resources. Institutional management policies are influenced by external organizational factors, such as political, environmental, social, and technical factors. Assistance from the supporting institutions in this process is an important key and control, so that the newly formed organization remains on the right track.*

**Keywords:** National Laboratory, institutional arrangement, organization, public health, surveilans

### 1. Introduction

Such as the COVID-19 outbreak at the end of 2020 which caused a global and regional health crisis and also had a major impact on health problems in Indonesia.(Ashmi Atthahira et al., 2021). In dealing with and preventing infectious diseases that have the potential for outbreaks, it is necessary to carry out appropriate and accurate management and management. The COVID-19 pandemic has taught us that proper and accurate management in dealing with the impact of the spread of epidemic disease is very necessary. Therefore, joint collaboration is needed between government agencies, society and also the international community(Xian et al., 2022). One way to do this is through surveillance activities. Surveillance activities are continuous and systematic activities of collecting, analyzing and interpreting health data which are important for use in planning, implementing and evaluating public health activities.(Center for Disease Control and Prevention, 2002; Centers for Disease Control and Prevention, 2017). This surveillance activity involves various institutions including laboratories as an important part of surveillance activities to be able to collect accurate data related to the examination and diagnosis of diseases, especially infectious diseases that have the potential for outbreaks.(World Health Organization, 2016).

The Ministry of Health is one of the ministries that has the main task and responsibility for carrying out government affairs in the health sector. In carrying out one of its main functions,

---

<sup>1</sup>Politeknik STIA LAN Jakarta, Indonesia, fauz.muna@gmail.com

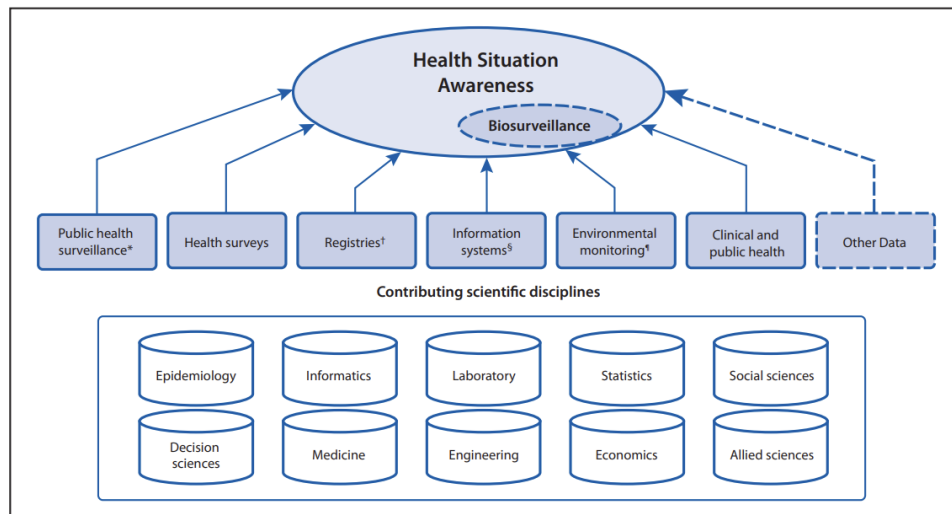
<sup>2</sup>Politeknik STIA LAN Jakarta, Indonesia, edysutrisno@stialan.ac.id

<sup>3</sup>Politeknik STIA LAN Jakarta, Indonesia, bambang\_giyanto07@yahoo.com

which is related to improving the quality of health nationally, it needs to be supported by the role of agencies/institutions within and outside the Ministry of Health. One of the internal agencies of the Ministry of Health that plays a role in helping improve the quality of national health is the Health Research and Development Agency (Badan Litbangkes). The Research and Development Agency is an institution designed as a research institution in the health sector in the Ministry of Health in accordance with Minister of Health Regulation Number 64 of 2015. The Research and Development Agency has important proportions, functions and roles in surveillance activities at the Ministry of Health because of the existence of the Sri Oemijati National Laboratory. This important function and role has been regulated in Minister of Health Regulation Number 658 of 2009 concerning Laboratory Networks for the Diagnosis of New-Emerging and Re-Emerging Infectious Diseases. The National Laboratory also plays a role in dealing with various infectious disease examinations such as avian influenza (bird flu), swine flu, meningitis, polio, measles, monkey pox (monkey pox), diphtheria, pertussis, tuberculosis, and COVID-19 as well as various other diseases. potential outbreak. The function and role of laboratories in examining potentially epidemic diseases is also supported by regulations and policies issued by the Indonesian Ministry of Health.

Based on Presidential Regulation of the Republic of Indonesia Number 78 of 2021 concerning the National Research and Innovation Agency which is the forerunner to the formation of the National Research and Innovation Agency (BRIN) organization. Presidential Regulation of the Republic of Indonesia Number 78 of 2021 is the legal basis for merging the functions of research, development, study, application and innovation into BRIN, so that the Research and Development Agency must disband and merge into BRIN. With this policy, the National Laboratory which is under the Health Research and Development Agency of the Ministry of Health will no longer have the auspices of losing its main function as a laboratory providing research and health development laboratories and as a network laboratory for diagnosing New-Emerging and Re-emerging infectious diseases to deal with potentially epidemic diseases.

On August 18 2023, Minister of Health Regulation Number 26 of 2023 was promulgated concerning the Organization and Work Procedures of the Health Biology Laboratory Center as the basis for the establishment of the Health Biology Laboratory Center, which is the new name for the National Laboratory. This regulation is one of the results of the institutional structuring policy at the Ministry of Health which changed the organizational pattern of the National Laboratory from a research laboratory to a Technical Implementation Unit in the field of public health laboratories. The Public Health Laboratory is also the result of transformation and institutional structuring policies at the Ministry of Health which officially came into existence in August 2023. This Public Health Laboratory is structured in stages with the National Laboratory as the peak of the public health laboratory reference network at the national level.



**Figure 1. Health Awareness Situations**

Source: Freden et al., 2012

## 2. Theoretical Background

### **Institutional Theory Of Institutional Structuring Policy**

In Paul du Gay's book, it is said that according to Max Weber, an organization is a relationship that has a framework structure containing authority, responsibility and division of labor in carrying out a certain function. Then, he further stated that the state is an institution that has a monopoly role in using its physical force legally (Meyer, 2008; Paul du Gay, 2000). Weber's organizational theory approach states that the organizations that are formed have a bureaucracy that will dominate people's lives because of their superior techniques. He believes that bureaucracy is driven through a clear hierarchy, bureaucracy as a characteristic related to human resources/workers, and bureaucracy is characterized by centralized decision making and power. So, the rules made by the institution should be written rules and binding on its members. The focus seen by Weber is related to the function of authority, namely 1) legitimate authority that controls an organization and regulates positions within the organization; 2) charismatic authority as the power possessed by the leadership of an organization to attract and interact with organizational members; and 3) rational legal authority as a force that prioritizes rational elements to create a system and applicable rules. So Weber concluded that bureaucracy is a system that is very close to rational legal authority which is built on a strong hierarchy and has clear rules and systems. (Meyer, 2008; Paul du Gay, 2005).

Institutions are seen as organizations that embody the main values in social society. Institutions or organizations according to Uphoff (1986) in McGill (McGill, 1996) has three criteria, namely "organization that is not an institution; institutions that are not organizations; organizations that are institutions", which means that the terms organization and institution are interchangeable or have the same definition. The leader of an organization has an important role in the establishment and development of an organization (David et al., 2019). This leader is an actor driving the organization, although it may not be recognized, the actor

has an important role in the journey of an organization. According to experts, the position and quality of an actor in an organization is one of the determining factors, because the actor's position cannot be separated from stereotypes or social views on the main figure of the actor at the top of the organization.(Hwang et al., 2014).

According to Robbins and Judge(2016; 2017)The meaning of this organization is experiencing development. In its development, the organization cannot be separated from the managerial system, so that the organization is a social regulatory system that is formed to carry out controlled performance regulation functions so that it is able to pursue the expected common goals.(Felin & Foss, 2019; Robbins & Judge, 2017). In an organization, the highest leader must be the one who masters good management, namely planning, organizing, leading and controlling. The planning function is an important part of defining organizational goals, establishing appropriate strategies to achieve those goals and developing a series of plans to integrate and coordinate activities.(Langton et al., 2016; Robbins & Judge, 2017).

In the organizational ecosystem according to Buchanan & Huczynski, political, economic, social, technological, legal and ecological factors are an inseparable part of an organization and have a strong influence on the progress of an organization. This PESTLE analysis is a study of looking at opportunities and threats caused by external factors to an organization that will cause changes within an organization. By carrying out this analysis, you will gain a new perspective on the changes that occur within an organization, so that better policies and decisions will be produced in the future (Buchanan & Huczynski, 2017).

The explanation of the PESTLE analysis in the institutional analysis of the Sri Oemijati National Laboratory after the transition to the Research and Development Agency is:

- a. *Context factor* (PESTLE): related to the conditions that occurred after the transition of the Health Research and Development Agency to the National Laboratory, there were no clear regulations so that it did not have a framework that was in accordance with the business process and objectives of the Laboratory in carrying out surveillance of infectious infectious diseases. This institutional change could also be caused by external factors, with the COVID-19 pandemic making it necessary for the Ministry of Health to make overall institutional changes to create collaboration to improve health services in the community.
- b. *Management and organizational factors*: related to decisions at the leadership level in carrying out the reorganization process at the Ministry of Health. The leadership has a policy in deciding whether or not to make institutional changes so that it is hoped that the new institution can carry out its functions better and more effectively

In the course of an organization, with environmental uncertainty, even efficient innovation will have an impact on the inability of an organization to make appropriate and efficient decisions (Aksom & Vakulenko, 2023). Dynamic environmental change requires an organization to make changes so that the organization can maintain its existence(Drori, 2020; Robbins & Judge, 2017). So organizations must have and master new ways of dealing with current situations and conditions by adapting organizational patterns to be more flexible. Institutional structuring is a process that can continuously occur as an organization grows and develops. Institutional structuring is a step and process in organizing and improving the government system. Institutional structuring also needs to be accompanied by structuring human resources, financial structuring related to the flow of money in and out, as well as mechanisms for cooperative relations between organizational units so that they can be well

integrated with each other. Peters believes that in reorganization money is one of the important things that plays a role in reorganization, not just an actor. Because this will show the value of an organization and the impact resulting from the process (Peters, 1992).

Robbins in *Organizational Behavior* suggests that internal organizational changes can be grouped into four categories, namely: structure, technology, physical setting, and people. Structural changes include changes in authority, coordination mechanisms, job redesign, or similar structural variables. Technology changes is a modification change in the way work is processed and the methods and equipment used. Changes to the physical arrangement include changes to space and layout arrangements in the workplace. Changes in human resources are changes in employee attitudes, skills, expectations, perceptions and/or behavior (Robbins & Judge, 2017).

Institutional change is an idea of institutional change, which is institutionally determined and legitimized and put into practice. This change is an innovation from the organization, and is far different from previously existing practices. The stages are a cycle starting from the emergence of innovation due to pressure resulting in functional, political and social changes. Then this pressure causes shock and instability which allows change to occur, so that in this instability new ideas and theories will emerge and will spread within the organization. The emergence of new theories and ideas will cause conflict and disputes due to differences in views, so they will think about the extent to which this innovation will be useful for them. In this cycle, actor involvement becomes a very important and inseparable part, especially actors who are in power so they are able to implement changes and create new patterns. And in practice it can lead to reinstitutionalization taking into account many things (Etheridge et al., 2009).

### **3. Methodology**

The method used in this research is a qualitative method, namely data collection through case study and in-depth interviews. The results of this data collection were then combined with a desk study to strengthen the data/information obtained from in-depth interviews, document review and theory review. In addition, in order to make data collection more focused, before conducting in-depth interviews, researchers have conducted PEST Analysis. Through this method, the main problems in institutional structuring policy in National Laboratory can be identified.

After knowing the main problems in institutional structuring policy in National Laboratory, researchers conducted in-depth interviews and case study to confirm the results of PEST Analysis had been done previously. Based on the results of the in-depth interviews, researchers also conducted a desk study by collecting data that supported the research, include human resource data, regulation, documentation of meeting, documentation from human resources development.

The data that has been collected is then triangulated by linking the desk study information/data with the results of in-depth interviews. The results of this triangulation are analyzed until finally a conclusion and recommendation can be drawn.

#### 4. Empirical Findings/Result

There are two forms of institutional change that occur within an institution, namely the merger of two or more agencies and changes within the agency (organization). This institutional change is deemed necessary to create good quality public management. Within the Ministry of Health, especially at the National Laboratory, the process of institutional change is carried out within the Ministry of Health. In its implementation, it will have an impact on the main dimensions of an institution, namely human resource management (personnel), changes in financial management, changes in organizational structure, changes in governance management, and the quality of public services. The main problem that occurs lies in the objectivity of employee placement in accordance with the basic abilities and mastery of each employee's field. Institutional changes also have an effect on improving employee performance. Apart from that, it also has an impact on financial arrangements, and it is hoped that with institutional changes, public services are expected to become more effective and efficient. Management functions are also undergoing changes, even though this management function is useful as a guide in achieving organizational goals. With institutional changes, it is hoped that the quality of public services will improve. However, the reality faced is that the implementation of institutional changes at the National Laboratory has not gone well.

#### *Figure 3. Models of Institutional Change*

Source: Etheridge et al., (2009)

Researchers adopted PESTLE analysis with PEST analysis and then looked at 4 external factors that influenced the National Laboratory institution after the transition to the Research and Development Agency, namely: Political, Social, Environmental, and Technical. In the model prepared by this researcher, it is hoped that it can analyze institutional cases at the National Laboratory. The political factors that researchers consider to be the driving force are changes in leadership (legitimacy) because a leader needs legitimacy while still in office and the regulations of the Litbangkes Agency as the parent National Laboratory which no longer apply after the transition of the Litbangkes Agency to BRIN. The environmental factor that is driving change is the condition of the COVID-19 pandemic which has made the Ministry of Health innovate in order to improve maximum services. The social factors that drive this are the community's need for good health services, as well as the never-ending health problems in Indonesia. Technical factors that play a role are limited health facilities, the capacity and professionalism of health workers that need to be improved, and the lack of good collaboration between agencies so that communication does not run well.

These external factors are currently driving institutional changes, especially in the National Laboratory after the transition to the Research and Development Agency. The push for change creates a response within the organization's internal structure, such as institutional structure, technology, human resources and physical settings. If this internal response is responded to well, it is hoped that in the future an appropriate organizational model will be obtained, namely an effective institution and in accordance with the National Laboratory's business processes so that there will be a good increase in the quality of work.

**Table 1. The SWOT Analysis**

<b>STRENGTH</b>	<b>WEAKNESS</b>	<b>OPPORTUNITY</b>	<b>THREAT</b>
Already have regulations as a basis for establishing UPT	The number of human resources is minimal/still lacking	Establish collaboration with government partners (other agencies within/outside the Ministry of Health)	The political situation, namely changes in leadership, influences the organizational structure
Has good and advanced laboratory equipment	Administrative rooms that are not suitable for use	Establishing technology development collaboration with research institutions (BRIN and academics)	The budget affects the performance of new institutions, an appropriate financial management strategy is needed
As a national reference laboratory	Limited meeting rooms cannot be used for technical online training	Establish collaboration with external stakeholders (WHO, CDC, GF, UNDP, JICA)	There are no regulations governing relationships between institutions/networks (surveillance activities)
Carrying out surveillance functions that are important in health security	Technical and expert personnel are still not met according to workload analysis (ABK) calculations	Recruiting new employees with various opportunities provided (job vacancies, transfers, recruitment), and professional contracts	
Carry out coaching for the laboratory health network at regional level	Administrative staff are still not fulfilled quickly	Changes to business processes to improve services	

Carrying out the monitoring and evaluation function of the laboratory health network at regional level	Not following the accreditation and quality of service laboratories and health laboratories	Innovation and digitalization to support service transparency	
Formulate national policies in the field of health labs		Increase the capacity and professionalism of employees according to the employee's career level and functional duties	

The table above is the result of a SWOT analysis to determine the capabilities of the National Laboratory. Apart from that, it is also known that current deficiencies are an obstacle for the National Laboratory in developing the organization. The National Laboratory also has the opportunity to develop itself in the future by dynamically following developments in the direction and goals of the organization, as well as analyzing threats that will influence the development of the National Laboratory organization in the future.

In the short term, the main things that need to be done are: 1) The National Laboratory needs to collaborate with the Directorate of Public Health Governance and the Human Resources Organization Bureau to map employee needs and immediately fulfill employee requirements through the opportunities provided such as opening internal job vacancies. will facilitate employee transfers to the National Laboratory and/or recruit professional staff through contract channels in accordance with government regulations; 2) collaborate with government partners, namely regional laboratories and Provincial/Regency/City Health Services to socialize service networks and improve partnerships; 3) map the capacity and capabilities of human resources at the National Laboratory and create training programs that are in accordance with the duties and functions of employees who support the institution; 4) map the quality of service standards that have not been met and carry out self-assessments in an effort to improve internally and prepare for accreditation and improve service quality; 5) mapping regulations related to surveillance network activities for potential epidemic diseases as part of the functions and duties of the National Laboratory at the national reference level; and 6) mapping physical needs (buildings and rooms) to support organizational services and functional tasks.

The National Laboratory must also have a long-term plan (2-4 years), namely to: 1) increase the capacity and ability of human resources at the National Laboratory by conducting training programs both internally/externally and opening up opportunities to increase the level of the career path at school level. carry on; 2) improve the quality of service standards by participating in the accreditation program required for national level network health labs and actively carrying out Internal Quality Assurance and External Quality Assurance as one of the conditions; 3) maintain and increase collaboration with partners (internal/external to the Ministry of Health) as well as other stakeholders outside the Ministry of Health by actively participating in routine activities and meetings; 4) build and carry out physical arrangements to improve services and organizational functions, so that services in the National Laboratory can run smoothly and well, as well as maintaining the health and work



safety of employees who are not laboratory technicians; and 5) develop regulations that support networking and surveillance activities together with the Directorate of Public Health Governance and the Directorate of Health Surveillance and Quarantine so that the role of each institution is clear so that disease diagnosis and examination services in health security efforts run well and are under control.

## 5. Conclusions

This case study with the locus of the Center for Health Biology Laboratory (National Laboratory) has analyzed and described institutional structuring policies. Based on the analysis that has been carried out, it can be concluded that the institutional management policy at the National Laboratory has not worked well because the change in the research laboratory business process to become a public health laboratory changes all organizational tasks and functions including tasks, structure and human resources. Institutional structuring policies at the Center for Health Biology Laboratory (National Laboratory) are influenced by external organizational factors such as political, environmental, social and technical factors.

The institutional structuring process at the National Laboratory is still not optimal, it takes a long time, accompanied by monitoring and evaluation from the supporting institutions. Assistance from the supporting institutions in the institutional structuring process is an important key and control so that the newly formed organization remains on the right track.

## References:

- Aksom, H., & Vakulenko, V. (2023). Revisiting the scope and suggesting novel domains of institutional theory in the public administration research. *Teaching Public Administration*. <https://doi.org/10.1177/01447394231191935>
- Ashmi Atthahira, N., Eliyana, A., Joesah, N., Tarigan, B., & Ali Ahmad, M. (2021). Change Management and Creativity during Pandemic Covid-19 in Indonesia. In *Systematic Reviews in Pharmacy* (Vol. 12, Issue 1).
- Buchanan, D. A., & Huczynski, A. A. (2017). *Organizational Behaviour* (9th ed.). Pearson.
- Center for Disease Control and Prevention. (2002). *Core Functions and Capabilities of State Public Health Laboratories. National Task Force on Fetal Alcohol Syndrome and Fetal Alcohol Effect Defining the National Agenda for Fetal Alcohol Syndrome and Other Prenatal Alcohol-Related Effects*.
- Centers for Disease Control and Prevention. (2017). *Advancing Public Health: The Story of the National Public Health Improvement Initiative*.
- David, R. J., Tolbert, P. S., & Boghossian, J. (2019). Institutional Theory in Organization Studies. In *Oxford Research Encyclopedia of Business and Management*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190224851.013.158>
- Drori, G. S. (2020). Hasn't Institutional Theory Always Been Critical?! *Organization Theory*, 1(1), 263178771988798. <https://doi.org/10.1177/2631787719887982>
- Etheridge, F., Couturier, Y., Trouvé, H., Saint-Jean, O., & Somme, D. (2009). Is the PRISMA-France glass half-full or half-empty? The emergence and management of polarized views regarding an integrative change process. *International Journal of Integrated Care*, 9(4). <https://doi.org/10.5334/ijic.510>
- Felin, T., & Foss, N. (2019). Microfoundations for institutional theory? In *Research in the Sociology of Organizations* (Vol. 65B, pp. 393–408). Emerald Group Publishing Ltd. <https://doi.org/10.1108/S0733-558X2019000065B031>

- 
- Hwang, H., Colyvas, J. A., Hoffman, S., Jang, Y. S., Jun, S., Krücken, G., Lounsbury, M., Meyer, J., Powell, W., Suarez, D., & Suddaby, R. (2014). Ontology, Levels of Society, and Degrees of Generality: Theorizing Actors as Abstractions in Institutional Theory. *Academy of Management Review*, 1–68.
- Langton, N., Robbins, S. P., & Judge, T. A. (2016). *Organizational Behavior Concepts, Controversies, Applications* (7th ed.). Pearson.
- McGill, R. (1996). *Institutional Development: A Third World City Management Perspective*. St. Martin's Press.
- Meyer, M. W. (2008). *Change in Public Bureaucracies*. Cambridge University Press.
- Paul du Gay. (2000). *In Praise of Bureaucracy*. SAGE Publications.
- Paul du Gay. (2005). *The Values of Bureaucracy*. Oxford University Press.
- Peters, B. G. (1992). Government Reorganization: A Theoretical Analysis. *International Political Science Review*, 13(2), 199–217. <http://www.jstor.org/stable/1601532>
- Robbins, S. P., & Judge, T. A. (2017). *Organizational Behavior* (17th ed.). Pearson.
- World Health Organization. (2016). *International Health Regulation (2005)* (3rd ed.). WHO.
- Xian, M., Zhao, C., & Zhou, Y. (2022). From Bureaucratic Coordination to a Data-Driven Model: Transformation and Capacity Building of Community-Based Prevention and Control of Public Health Events. *International Journal of Environmental Research and Public Health*, 19(14). <https://doi.org/10.3390/ijerph19148238>