



IMPLEMENTATION OF THE RADIATION HAZARD ALLOWANCE POLICY FOR RADIATION WORKERS IN HEALTHCARE FACILITIES

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| KEYWORDS | ABSTRACT |
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| Implementation; Policy; Radiation Hazard Allowance; Radiation Workers. | Presidential Decree No. 138 of 2014 regulates Radiation Hazard Allowance for radiation workers who work as radiation workers in the health sector. This is because in carrying out their duties as radiation workers, they face direct patients and X-ray devices, and radiation workers have a higher risk of radiation impacts caused so that in carrying out their. This type of research is descriptive qualitative. Triangulation is carried out by confirming between data obtained from in-depth interviews (interview data) with data obtained from observations (observation data) and data obtained from studies/document studies with the number of informants interviewed 15 (fifteen) informants consisting of informants at the National Police of The Republic of Indonesia (POLRI) Hospital, informants at Ciawi Hospital and informants from the BNN Rehabilitation Center Clinic. Observation/observations, interviews, and documentation carry out this data collection. Purposive and snowball techniques were used to find informants in the study. The results of this study show that the implementation of the radiation hazard allowance policy for radiation workers at the National Police of The Republic of Indonesia (POLRI) Hospital currently needs to be paid because it is still waiting for the policy from the Chief of Police. The inhibiting factor is that radiation workers cannot choose benefits, as stated in Presidential Regulation 138 of 2014. Implementing the radiation hazard allowance policy at the BNN Rehabilitation Center Clinic was previously unpaid since Presidential Decree 48 of 1995. However, it began to be paid from 2014 to 2022 using Presidential Regulation number 138 of 2014 to 2022. |

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INTRODUCTION

Radiation Hazard Allowance (RAH) Presidential Regulation no. 138 of 2014, civil servants who are exposed to radiation working as radiation workers receive special allowances for the dangers of radiation experienced during work. Applicable laws and regulations regulate the provision of these benefits. Radiation workers work in nuclear or ionizing radiation facilities. They are expected to receive an annual radiation dose higher than the general public's (Wahyuningsih & Sugiarto, 2018). These radiation workers include radiologists, X-ray nurses, medical physicists, radiology nurses, electromedical technicians, radiopharmaceutical workers, cardiovascular technicians, radiology workers, and radiology administration workers. Radiation workers in radiology are at higher risk of the effects of radiation. This is because they come face to face with patients and X-ray equipment in carrying out their duties as radiation workers. Radiation workers in ASN and non-ASN environments can be given professional service rights and other benefits by the provisions stated in Minister of Health Regulation 81 of 2013 concerning the implementation of radiographer work (Sinaga, 2022).

However, apart from the enormous benefits, workers in the field of radiology are also faced with quite significant risks, namely the stochastic and non-stochastic biological effects of radiation

(Sulaiman, 2020). Based on ICRP (International Commission on Radiological Protection) publication number 26, it is said that stochastic effects are radiation effects where the chance of the effect occurring is a function of the radiation dose received with a threshold value. This effect occurs due to cell death from radiation exposure, either part or all of the body. Deterministic effects occur if the dose received is above the threshold and generally occurs sometime after exposure. Radiation workers are the ones most at risk of being affected by the biological effects of this radiation, apart from patients, the community, and the environment (Lestari, 2021).

The potential for significant radiation effects is an important safety factor, so there must be compensation for the radiation risks received by radiation workers, either in the form of radiation hazard allowances or in other forms, such as providing nutritious food and regular health checks to maintain the health condition of radiation workers. This will not only reduce the impact of X-ray radiation, it will also help improve the welfare of radiation workers. However, efforts to create a decent living are the right of every human being, as stated in Article 4 of the Health Law Number 36 of 2009: "Everyone has the right to health" (Shafiya et al., 2022).

The Republic of Indonesia Government Regulation Number 47 of 2016 concerning Health Service Facilities is a tool and place used to provide health service efforts, whether promotive, preventive, curative, or rehabilitative, carried out by the central government, regional government, and the community (Palu, 2020).

In the radiation field of health facilities, workers who are entitled to receive RAH benefits are workers in hospitals, health centers, clinics or radiology departments, community lung health centers, health laboratory centers, health laboratory centers, X-ray aircraft testing laboratory centers, individual radiation dosimetry centers, calibration centers for radiation measuring instruments in health facility security centers or locations, radiography and radioactive laboratories in educational institutions for radiographers and physicists (Damayanti et al., 2022).

Based on the first preliminary study at the National Police of The Republic of Indonesia (POLRI) Hospital Radiology Installation, which has 43 radiation workers, consisting of 30 (thirty) radiographers, 1 (one) medical physicist, 4 (four) radiology specialist doctors, 6 (six) administration, and 2 (two) radiology nurses, RAH was not paid, because they had to wait for the National Police Chief's Decree regarding the payment of Radiation Hazard Allowance, however, the allowance given was functional by Presidential Regulation of the Republic of Indonesia number 115 of 2016 concerning functional position allowances (Nuzula & Januarti, 2017).

In the second preliminary study, there were 18 radiation workers in the radiology section of RSUD Ciawi Bogor, consisting of 12 (twelve) radiographers, 1 (one) medical physicist, 2 (two) radiologists, 2 (two) radiology admins and 1 (one) radiology nurse. At Ciawi Hospital, Bogor, radiation workers with civil servant status receive RAH, and non-PNS radiation workers (BLUD employees) only receive a risk allowance based on Ciawi Bogor Regional Hospital policy with a lower amount than the RAH allowance. In contrast, contract radiation workers only receive it once they wait for an appointment. They are BLUD employees and have been receiving RAH allowances at the Ciawi Regional General Hospital since Presidential Decree number 48 of 1995 with a nominal amount of 450,000 to Presidential Decree number 138 of 2014 with a nominal amount of 1,150,000 (Goldenberg et al., 2021).

In the third preliminary study at the Clinical Radiology Installation of the National Narcotics Agency (BNN) Rehabilitation Center, there were 15 (fifteen) radiation workers, consisting of 1 (one) radiology specialist, 1 (one) medical physicist, 6 (six) radiographers, 3 (three) electromedical

technicians, 1 (one) radiology nurse and 3 (three) administration. Radiation workers at BNN are placed in rehabilitation centers/locations with health service facilities so that RAH can be given to radiation workers in their respective sections. Since BNN was founded in 2002, radiation workers within BNN have not received RAH. Because of efforts to submit radiation workers to the Bureau HR and BNN Finance Bureau, RAH grants can be given from 2014 to 2022. However, in February 2022, RAH began to be stopped because there was no RAH payment account in the SAKTI application (salary and allowance payment application for all employees in government agencies), so BNN stopped RAH. Moreover, the work unit of the Center for Rehabilitation submitted a request for a RAH account in the SAKTI application for radiation workers with a service note (B/446/VII/KU/2022/Babes) to the BNN Secretariat Finance Bureau, with the reply being that it could not be paid because This account is not included in the Standard Chart of Accounts (BAS). It is replaced by payment of functional allowances with an amount lower than the RAH so that the inhibiting factor in implementing the RAH policy is that radiation workers cannot choose allowances according to Presidential Decree Number 138 of 2014.

The benefits of this research will help develop policy implementation theory and administrative science thinking, especially regarding radiation hazard allowance policies for radiation workers. Policy implementation in public policy is a problem because policies must be implemented to achieve the desired goals and effects

This research aims to analyze the radiation hazard allowance policy implementation for radiation workers in health facilities and the supporting and inhibiting factors for implementing the radiation hazard allowance policy for radiation workers in health facilities.

METHOD

This type of research is descriptive qualitative. This research is based on facts that naturally occur in human life. The research was conducted in health service facilities, including the National Police of The Republic of Indonesia (POLRI) Hospital, Ciawi Bogor Regional General Hospital, and the BNN Rehabilitation Center Clinic. This research used purposive and snowball techniques to find informants. Triangulation is carried out by confirming between data obtained from in-depth interviews (interview data) with data obtained from observations (observation data) and data obtained from studies/document studies with the number of informants interviewed 15 (fifteen) informants consisting of informants at the National Police of The Republic of Indonesia (POLRI) Hospital, informants at Ciawi Hospital and informants from the BNN Rehabilitation Center Clinic. The data collection techniques used in this research is observation, interviews, and documentation. The data analysis used in this research is interactive analysis using data analysis methods.

RESULTS AND DISCUSSION

They are implementing the radiation hazard allowance policy for radiation workers in health facilities contained in Presidential Decree No. 138 of 2014 regarding Radiation Hazard Allowance. However, the success of implementing the Radiation Hazard Allowance policy for radiation workers in health facilities will differ depending on the characteristics, level of understanding of human resources, and conditions in the health facilities (Utsman & Nurpahsari, 2020).

Implementing the radiation hazard allowance policy for radiation workers in health facilities generally aims to analyze the supporting and inhibiting factors for implementing the radiation hazard allowance policy for radiation workers in health facilities and analyze the implementation of the

Radiation Hazard Allowance policy for radiation workers in health facilities. Based on observation and interview data that researchers have obtained, efforts to implement this policy have been carried out at the National Police of The Republic of Indonesia (POLRI) Hospital, Ciawi Regional Hospital, and BNN Rehabilitation Center Clinic. However, of the 3 health facilities, 2 have provided RAH for radiation workers, and 1 has not yet given RAH (Apratama, 2022).

National Police of the Republic of Indonesia (POLRI) Hospital

Sukanto Hospital Central Police Hospital, from now on referred to as Rumkit Polpus RS Sukanto, is a hospital owned by the Police, located at Jalan National Police of the Republic of Indonesia National Police of The Republic of Indonesia (POLRI) Hospital Kramat Jati, East Jakarta. Rumkit Polpus RS Sukanto provides health services in the form of examinations, medical care for National Police of the Republic of Indonesia National Police of The Republic of Indonesia (POLRI) members, civil servants, and their families, as well as health support for police operational duties, besides also providing services to the general public (Sukanto & Suryowuryanto, Nd).

List of Radiation Workers

The radiology installation has human resources to provide health services, as shown in Table 1 below:

Table 1 List of Radiation Workers at National Police of The Republic of Indonesia (POLRI) Hospitals National Police of The Republic of Indonesia (POLRI) agency health facilities

| Power Type | Qualifications: Have SIP/STR/SIB | Amount |
|-------------------------|---|--------|
| Radiology | | |
| Medical specialist | Radiology Specialist Doctor | 6 |
| Radiographer | D-III Radiological Engineering / DIV Radiological Engineering | 27 |
| Medical Physicist & PPR | S-1 Medical Physicist | 1 |
| General Administration | SENIOR HIGH SCHOOL | 2 |
| Radiology Nurse | D-III Nursing | 2 |
| TOTAL | | 38 |

Radiology Services

As a referral center hospital, the National Police of the Republic of Indonesia National Police of The Republic of Indonesia (POLRI) Hospital continues to improve in all aspects, and the hospital management monitors the achievements of each installation unit's hospital program or program. The radiology installation is one of the supporting service units that provides health services in radiology (Djamhari et al., 2020). Radiology installation health services are guided by service programs related to human resources and radiology equipment. Radiology services use radiation energy modalities for diagnostics and therapy, such as imaging techniques and radiation with radioactive X-rays (Nurvan et al., 2023). Diagnostic radiology services use ionizing and non-ionizing radiation for diagnosis, which includes the Central Radiology Room consisting of 2 (two) USG, 2 (two) Ct-Scans, 2 (two) DR, and 2 Panoramic. For the ER radiology room, there is 1 (one) conventional device and 1 (one) Ct-Scan, ICU room 1 (one) conventional device, OK room 2 (two) C-ARM devices, OK heart room 1 (one) mobile unit device, urology room 2 (two) C-ARM devices, intervention room 1 (one) C-ARM device.

The coverage of radiology services observed is by Table 2 below:

Table 2 Service Coverage at National Police of The Republic of Indonesia (POLRI) Hospitals National Police of The Republic of Indonesia (POLRI) agency health facilities

| No | Radiology Services Coverage | Aspects being observed |
|----|--|--|
| 1 | Modality | The number of modalities owned by the National Police Hospital is 13, including 2 USG, 3 CT-Scan, 2 DR, 2 Panoramic, 2 conventional tools, and 2 C-arm tools. |
| 2 | Radiation Worker | The number of radiation workers is 38 (thirty-eight): 6 radiologists, 27 radiographers, 2 radiology nurses, radiology administrators, and 1 medical physicist and PPR. |
| 3 | Paid RAH | RAH cannot be paid because they have to wait for the RAH Decree from the National Police Chief, and currently, radiation workers receive functional allowances. |
| 4 | Regulations | The regulation used is Presidential Regulation 115 of 2016 concerning functional allowances |
| 5 | Person in charge of RAH payment administration | The parties involved in RAH payments are the National Police Headquarters and the National Police Chief. |

Ciawi Regional General Hospital

Initially, the Ciawi Regional General Hospital (RSUD) was a health facility at the level of a Community Health Center with care. Then, in 1993, it was inaugurated as a class C hospital belonging to the Regional Government of Bogor Regency with a capacity of 111 beds, meeting the demands of public health services. More and more beds and specialist services are available. Based on the Minister of Health Decree Number 1215/MENKES/SK /XI/2007 dated 28 December 2007, the Ciawi Regional General Hospital was upgraded to a class B non-teaching hospital. This hospital has 174 beds (TT) and has advanced medical equipment such as 4-dimensional ultrasound and treadmills. Apart from that, human resources continue to increase in number and capability. By the Regent's Decree Number: 445/571/KPTS/Huk/2010 dated 25 November 2010, Ciawi Regional Hospital was designated as PPK BLUD of Ciawi Regional Hospital because it meets the Minimum Service Standards (SPM), Hospital by Law (HBL), and well-structured Accounting Standards. To provide better services to the community, Ciawi Regional Hospital currently has a capacity of 393 beds (TT) and has other increasingly complete supporting facilities, such as specialist clinics, 24-hour emergency room, pharmacy, radiology and laboratory, Bogor pain center, chemotherapy, MCU, ICU, NICU, PICU, HCU, ICCU, hemodialysis, cathlab services, and others. With 1260 employees, both medical and non-medical.

List of Radiation Workers

The radiology installation has human resources to provide health services, as shown in Table 3 below:

**Table 3 List of Radiation Workers at Ciawi Hospital
(Bogor Regency Government Health Facilities)**

| Power Type | Qualifications: Have SIP/STR/SIB Radiology | Amount |
|-------------------------|---|--------|
| Medical specialist | Radiology Specialist Doctor | 2 |
| Radiographer | D-III Radiological Engineering / DIV Radiological Engineering | 12 |
| Medical Physicist & PPR | S-1 Medical Physicist | 1 |
| General Administration | SENIOR HIGH SCHOOL | 2 |
| Radiology Nurse | D-III Nursing | 1 |
| TOTAL | | 18 |

Radiology Services

Radiology is an installation that provides support services to help enforce diagnoses by utilizing beams or wave radiation, both electromagnetic and mechanical waves (Habiba, 2021).

The coverage of radiology services observed is by Table 4 below:

Table 4 Service Coverage at RSUD Ciawi (Bogor Regency Government Health Facilities)

| No | Coverage of radiology services | Observed aspects |
|----|--|--|
| 1 | Modality | The total of 12 of them is 2 mobile |
| 2 | Radiation Worker | 18 (Eighteen) people |
| 3 | Paid RAH | Radiation workers receive RAH. Since Presidential Decree number 48 of 1995 RAH with a nominal RAH of IDR 450,000,- until now, we use Presidential Decree number 138 of 2014 with a nominal RAH of IDR 1,150,000. |
| 4 | Regulations | RAH regulations have been used since Presidential Decree Number 48 of 1995 until Presidential Decree No. 138 of 2014 |
| 5 | Person in charge of RAH payment administration | The party involved in RAH payments is the personnel sector, namely Mr. January. |

BNN Center for Rehabilitation Clinic

The National Narcotics Agency Rehabilitation Center is a national reference center for the implementation of rehabilitation for drug abusers and drug addicts in a professional manner which functions to carry out medical and social rehabilitation services for drug abusers and drug addicts and is led by the Head of the BNN Rehabilitation Center. Based on Perbadanan No. 7 of 2020, the BNN Rehabilitation Center is committed to achieving the vision of "Shining Indonesia (Clean from Drugs)" and implementing integrated medical and social rehabilitation services. It also functions as a national reference center for rehabilitation assessment and development. It provides reports and information support in implementing P4GN. Implementing services at the BNN Rehabilitation Center for drug addicts and abusers uses a one-stop center system (one roof service) consisting of medical and social rehabilitation services under one roof. The social rehabilitation service uses the Therapeutic Community (TC) method with a capacity of 500 people (Analisa, nd).

List of Radiation Workers

Radiology installations have human resources to provide health services, as shown in Table 5 below. Radiology installations have aspects of human resources and health services consisting of radiation workers, as shown in Table 5 below:

**Table 5 List of Radiation Workers at the National Narcotics Agency
(Non-ministerial agency health facility)**

| Power Type | Qualifications: Have SIP/STR/SIB Radiology | Amount |
|--------------------|---|--------|
| Medical specialist | Radiology Specialist Doctor | 1 |
| Radiographer | D-III Radiological Engineering / DIV Radiological Engineering | 5 |
| Electromedical | D-III Electromedical Engineering / DIV Electromedical Engineering | 2 |
| TOTAL | | 8 |

Radiology Services

Radiodiagnostic services, diagnostic imaging, and interventional radiology are included in the category of diagnostic radiology services, which include diagnostics that use ionizing and non-ionizing radiation. Radiodiagnostic services include conventional, panoramic, and ultrasound services. The coverage of radiology services observed is in Table 6 and the following figure:

Table 6 Service Coverage at the BNN Rehabilitation Center Clinic

(Non-ministerial agency health facility)

| No | Radiology Services Coverage | Observed Aspects |
|----|--|--|
| 1 | Modality | The number of modalities at the National Narcotics Agency is 3, including conventional, panoramic, and ultrasound |
| 2 | Radiation Worker | 8 (Eight) people |
| 3 | Paid RAH | Since BNN was founded in 2002, radiation workers have not received RAH with Presidential Decree 48 of 1995, a nominal amount of 450,000. RAH can be given from 2014 to 2022 with Presidential Decree 138 of 2014 with a nominal amount of 1,150,000. However, in February 2022, RAH was stopped because the RAH payment account in the SAKTI application (the salary and allowance payment account for employees in all government agencies) did not have a RAH payment account. |
| 4 | Regulations | The RAH regulation when it is paid is Presidential Decree No. 138 of 2014 with a nominal amount of 1,150,000 |
| 5 | Person in charge of RAH payment administration | The parties involved in RAH payments at the National Narcotics Agency are HR, Finance, Kepeg, and HR Finance Bureau. |

Implementation of the Radiation Hazard Allowance Policy for Radiation Workers at National Police of the Republic of Indonesia (POLRI) Hospitals

The National Police of The Republic of Indonesia (POLRI) Hospital represents health facilities in National Police of The Republic of Indonesia (POLRI) institutions. It was discovered in the field that RAH was not provided at the National Police of The Republic of Indonesia (POLRI) Hospital because they had to wait for the National Police Chief's Decree regarding RAH payments to be issued. However, the optional allowance given was functional by Presidential Decree Number 115 of 2016 concerning functional allowances.

Based on informant data, radiation workers have applied for RAH, and radiology installations have applied for HR. However, the success of implementing the radiation hazard allowance policy will differ depending on the characteristics, level of understanding of human resources, and conditions in the hospital. Implementing the radiation hazard allowance policy for radiation workers at National Police of The Republic of Indonesia (POLRI) Hospitals generally aims to analyze the implementation of the radiation hazard allowance policy for radiation workers and analyze the supporting and inhibiting factors for implementing the radiation hazard allowance policy for radiation workers at National Police of The Republic of Indonesia (POLRI) Hospitals. Based on observation data and in-depth interviews that researchers have obtained, efforts to implement the RAH policy have not been carried out at National Police of The Republic of Indonesia (POLRI) Hospitals and have never been obtained. The following is a table of data on the implementation of RAH policies at National Police of The Republic of Indonesia (POLRI) Hospitals.

Table 7 Implementation of the Radiation Hazard Allowance Policy at National Police of the Republic of Indonesia (POLRI) Hospitals

| No | Paid Year | Policy | Results of policy implementation |
|----|--|--|--|
| 1 | RAH at the National Police of The Republic of Indonesia (POLRI) Hospital is not paid by Presidential Decree 48 of 1995 | National Police of The Republic of Indonesia (POLRI) Hospital RAH has not been paid since Presidential Decree 48 of 1995 with a nominal amount of 450,000- | RAH payments for radiation workers are not paid. However, radiation workers at the National Police of The Republic of Indonesia (POLRI) Hospital receive functional allowances by Presidential Decree number 115 of 2016 concerning functional allowances. |
| 2 | RAH at the National Police of The Republic of Indonesia (POLRI) Hospital | National Police of The Republic of Indonesia (POLRI) Hospital RAH was not paid | |

| No | Paid Year | Policy | Results of policy implementation |
|----|---|---|----------------------------------|
| | Hospital is not paid by Presidential Decree 138 of 2014 | during Presidential Decree 138 of 2014 with a nominal amount of 1,150.00- | |

Based on Table 7, the Radiation Hazard Allowance in the National Police of The Republic of Indonesia (POLRI) Hospital environment still needs to be provided. This is by the statements made by each informant, namely the radiographer. Based on research data, the problem that occurs in the National Police of The Republic of Indonesia (POLRI) Hospital environment is that a National Police Chief's Decree must be made regarding RAH payments for radiation workers in the National Police of The Republic of Indonesia (POLRI) agency environment so that policymakers in the National Police of The Republic of Indonesia (POLRI) agency environment have not provided RAH, especially for radiation workers who are in direct contact with the radiation field. RAH is a risk allowance for radiation workers because this allowance is obtained based on Presidential Decree No. 138 of 2014 with level I radiation hazards. The leadership's policy regarding regulations on providing RAH is still being considered because radiation workers have to wait for a RAH decree from the National Police Chief. Based on the results of in-depth interviews conducted by researchers, almost all radiation workers want RAH because RAH is a risk allowance for radiation workers, which is different. With functional allowances because the nominal amount is lower for current radiation workers whose functional allowance is below the RAH amount.

Implementation of the Radiation Hazard Allowance Policy for Radiation Workers at the Ciawi Regional General Hospital

Presidential Decree No. 138 2014 states that radiation hazard allowances (RAH) for civil servants (PNS) who work as radiation workers in the health sector, currently radiation hazard allowances have been provided since Presidential Decree Number 48 of 1995 at the Ciawi Regional General Hospital. Implementing the radiation hazard allowance policy at the Ciawi Regional General Hospital is currently carried out by the party responsible for administration, namely the management. Facts have been found that radiation hazard allowances are provided for radiation workers as a risk allowance because all radiation workers are in the high-risk category—namely, workers who come into direct contact with and provide services to patients. High-risk radiology workers include specialist doctors who work in radiation exposure areas such as radiology, radiation oncology, nuclear medicine, radiology dentists, cardiology, radiographer staff, medical physicists, cardiovascular technicians, and radiopharmaceuticals with a factor value of 720 which is obtained from the sum of the RLDL factors of 450, factor JR 180, and factor BR 90, radiation workers carry out their duties in radiology installations, one of whose duties is to be responsible for providing services to patients in the high-risk category. This is strengthened by facts in the field when observing high-risk workers, and several stages are carried out, as depicted in the flow chart below.

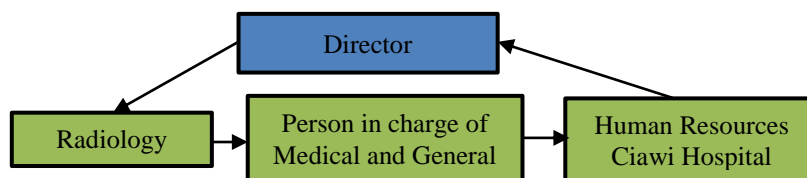


Chart 1Flow of Application for Radiation Hazard Allowance (Research Processed, 2023)

Chart 1 above illustrates that radiology submits a RAH to the department responsible for medical and general affairs and then forwards it to the HR department of Ciawi Regional Hospital and submits it to the Director. Then, implementing the Radiation Hazard Allowance policy, HR provided a circular from the Director containing orders to provide RAH within the Ciawi Regional General Hospital so that it could be informed to radiation workers.

The Head of the radiology installation at the Ciawi Regional General Hospital previously stated that radiation workers were at high risk. Hence, radiation workers made the RAH application to the HR department to give RAH to radiation workers, both civil servants and non-civil servants.

Based on research data from interviews, since Presidential Decree No. 48 of 1995 concerning radiation hazard allowances for radiation workers at the Ciawi Regional General Hospital, both civil servants and non-civil servants have been given this until the latest Presidential Decree No. 138 of 2014, radiation workers in the radiology unit still receive this allowance. Risks: The following is a data table on implementing the RAH policy at the Ciawi Regional General Hospital.

**Table 8 Implementation of the Radiation Hazard Allowance Policy
At the Ciawi Regional General Hospital**

| No | Paid Year | Policy | Results of policy implementation |
|----|--|--|--|
| 1 | Presidential Decree Number 48 of 1995 | The initial provision of RAH at the Ciawi Regional General Hospital since Presidential Decree 48 of 1995 was a nominal amount of 450,000 | RAH payments can run smoothly and are given to radiation workers, both ASN and non-ASN, within the Ciawi Regional General Hospital by presidential regulation number 138 of 2014 |
| 2 | Presidential Decree Number 138 of 2014 | RAH is currently paid by Presidential Decree 138 of 2014 with a nominal amount of 1,150,000.-. | |

Based on Table 8, the Radiation Hazard Allowance in the Ciawi Regional General Hospital environment has been given. This is the statement submitted by each radiation worker informant at the Ciawi Regional General Hospital. Based on research data from interviews since Presidential Decree No. 48 of 1995 concerning radiation hazard allowances for radiation workers at the Ciawi Regional General Hospital, both ASN and Non-ASN have been given to the latest Presidential Decree No. 138 of 2014, radiation workers in the radiology unit still receive this allowance. Risk.

Implementation of the Radiation Hazard Allowance Policy for Radiation Workers at Rehabilitation Centers.

Radiation Hazard Allowances at the BNN Rehabilitation Center began to be provided in 2014. Below is a table of the Radiation Hazard Allowance policy implementation at the BNN Rehabilitation Center.

**Table 9 Implementation of the Radiation Hazard Allowance Policy
At the National Narcotics Agency**

| No | Paid Year | Policy | Results of policy implementation |
|----|----------------|---|--|
| 1 | 2002-2014 | Since Presidential Decree 48 of 1995, the nominal amount of 450,000 RAH has not been paid to BNN | RAH is not paid |
| 2 | Year 2014-2022 | The initial RAH paid at the National Narcotics Agency is a nominal amount of 1,150,000 using Presidential Regulation Number 138 of 2014 | RAH is paid and given to radiation workers according to presidential regulation number 138 of 2014 |
| 3 | 2022- | The provision of RAH has been stopped. As a | RAH was stopped because the RAH |

| No | Paid Year | Policy | Results of policy implementation |
|----|-----------|--|--|
| | to date | replacement for the current RAH, functional allowances are given to radiation workers. | payment account was unavailable in the SAKTI application, namely the salary and allowance payment application for all employees. |

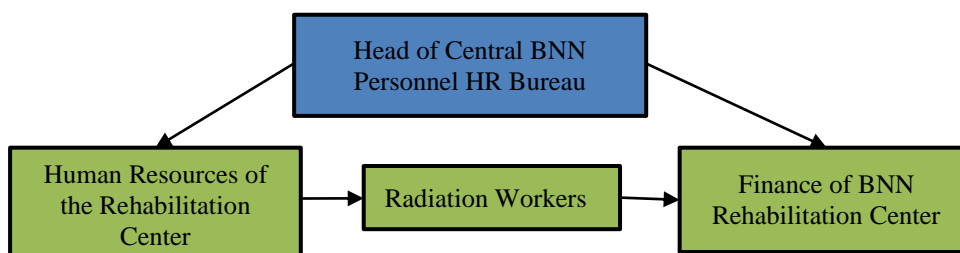
Based on Table 9, the Radiation Hazard Allowance within the National Narcotics Agency cannot be returned. This is by the statement submitted by each informant, namely the Head of the civil service and TU sub-division, Head of the housing sub-division, financial Verifier, Financial Treasurer, PPK (commitment-making official), financial HR Bureau, and radiation workers. Based on research data, the problem within the BNN Center for Rehabilitation is the SAKTI application, so policymakers within the BNN environment are unaware of the existence of RAH regulations for radiation workers directly related to the radiation field. RAH is a risk allowance for radiation workers because the allowance is obtained based on Presidential Decree No. 138 of 2014 with level I radiation hazards. Leadership policies regarding the regulations for providing RAH are still being considered based on the results of in-depth interviews conducted by researchers, almost all leaders within the BNN Rehabilitation Center, not all of whom know about Presidential Decree No. 138 of 2014 and related to the SAKTI application which has not yet received an answer from the Head of the Financial Bureau regarding recommendations for accounts to be used as RAH payments within the BNN Rehabilitation Center.

From the interview results, the researcher tried to find information again from other informants to obtain information and data at the BNN Rehabilitation Center regarding RAH, which the implementer stopped.

The finance department said that in order to be able to disburse the budget for the Radiation Hazard Allowance, there need to be regulations that can cover it or an official circular from the Head of the central financial Bureau so that the work unit (work unit) from the Center for Rehabilitation has submitted a letter proposing additional payment accounts to the Bureau. Civil service and the central financial Bureau by getting a reply to the proposal that functional allowances replace RAH payments with a lower nominal amount.

In this way, the BNN Rehabilitation Center work unit follows the rules set by the central staffing and the allowances set at this time, namely that radiation workers receive functional allowances. Several results of interviews with informants from officials and radiation workers at the National Narcotics Agency's Rehabilitation Center for RAH account payments, which are the main problem, have been submitted to the civil service and central financial Bureau for follow-up until RAH can be implemented again within the National Narcotics Agency. Based on the results of interviews, implementers at the Center for Rehabilitation want the account back on the SAKTI application so that the rights of radiation workers can be paid.

Based on researchers' observations, on average, radiation workers at the National Narcotics Agency did not receive RAH from the start. Then, by applying for RAH based on Presidential Decree number 138 2014, RAH could be paid in 2014, which was stopped in 2022. This data shows that RAH at the National Narcotics Agency is not a radiation risk allowance for radiation workers but rather an employee compensation allowance. Based on the results of observations and interview results for RAH for radiation workers, several stages of the RAH account application process is carried out as depicted in the flow chart below:



**Chart 2 Submission Flow for adding a RAH account in the application
(Processed by Researchers, 2023)**

Chart 2 above illustrates that the Head of the HR Bureau ordered the HR department of the Rehabilitation Center to forward the answer that the Head of the central human resources bureau had given to all radiation workers to replace the account, which was previously a RAH account paid via account (511124) now the account has been switched to an account for payment of functional allowances because the account is not intended for RAH but as an account for payment of other compensation benefits so that RAH is replaced with functional allowances. After receiving an answer to the letter regarding the application for an additional account for RAH, the financial department informed radiation workers that they would not receive RAH back every month. However, they got only functional allowances according to the position of each radiation worker. After receiving this information, radiation workers at the Rehabilitation Center will receive the decision results from the Head of the central human resources bureau until the RAH regulations can be paid back by presidential regulation number 138 of 2014.

Supporting and Inhibiting Factors for Implementing the Radiation Hazard Allowance Policy for Radiation Workers in Health Facilities

Several models function as a guide to ensure that policy implementation stays within policy formulation. This thesis uses the political implementation model from George C. Edwards III. Structures, programs, and regulations are created to achieve the goals of the policy implementation process. However, policy implementation has different dynamics. Many factors influence its implementation, including those that play a role in supporting or hindering policy implementation. The facts in implementing the radiation hazard allowance policy for radiation workers are in Presidential Decree no. 138 of 2014 health facilities representing the National Police of The Republic of Indonesia (POLRI) agency, namely the National Police of The Republic of Indonesia (POLRI) Hospital.

The Ciawi Regional General Hospital represents the Bogor district government in paying RAH. So far, there have been no problems since Presidential Decree 48 of 1995. RAH has been paid. Using the George C. Edwards III Theory implementation model, seen from communication, resources, disposition, and bureaucratic Structure, there is research data on the three health facilities with different supporting and inhibiting factors in implementing policies for radiation officers.

National Police of The Republic of Indonesia (POLRI) Hospital Health Facilities representing the National Police Agency

Supporting and inhibiting factors for implementing the radiation hazard allowance policy for radiation workers at National Police of The Republic of Indonesia (POLRI) Hospitals National Police of The Republic of Indonesia (POLRI) agency health facilities are revealed using George C. Edward III's implementation model approach, which is seen through aspects of communication,

resources, disposition, and bureaucratic Structure. The relationship between these aspects in the implementation of the radiation hazard allowance policy for radiation workers in health facilities:

Communication

Communication is one aspect that influences the success of an implementation. Communication dramatically determines the success of achieving policy implementation goals. Effective policy implementation will occur if regulators already know what they will do. Knowledge of what will be done can work if communication goes well so that every decision/regulation in its implementation must be communicated to the right target. In this research, 3 (three) things are seen in implementing the radiation hazard allowance policy for radiation workers in health facilities from the communication aspect, namely the Implementor's understanding/knowledge in implementing the policy, resistance in implementing the policy, and achieving policy objectives.

Implementor's Understanding and Knowledge in Implementing the Radiation Hazard Allowance Policy for Radiation Workers at Police Hospitals.

The Implementor's understanding and knowledge in implementing the policy in question is the understanding/knowledge of the management of the National Police Hospital as the policyholder. The management of the National Police Hospital needs to fully understand the implementation of the radiation hazard allowance policy—the management of the National Police Hospital as the Implementor has never implemented a policy of providing RAH. Currently, the current policy for radiation workers at the National Police Hospital is the provision of functional allowances. Based on document observation, radiation hazard allowances are not currently provided at the National Police Hospital radiology installation. The current regulations are presidential regulations number 115 of 2016 concerning functional positions.

Resistance of Radiation Workers in Implementing the Radiation Hazard Allowance Policy for Radiation Workers

In implementing the radiation hazard allowance policy for radiation workers at the National Police Hospital, resistance (lack of compliance). The results of interviews with most informants show that incidents of resistance occurred at the National Police of The Republic of Indonesia (POLRI) Hospital with the target group. Facts in the field show that resistance can arise.

Achieving the Goal of Implementing the Radiation Hazard Allowance Policy for Radiation Workers in Health Facilities

To achieve policy objectives, the policies offered should be based on the target group's needs. The objectives of the radiation hazard allowance policy for radiation workers include analyzing the supporting and inhibiting factors in implementing the radiation hazard allowance policy. The achievement of the objectives of the radiation hazard allowance policy for radiation workers is also demonstrated through the performance of radiation workers at each health facility, especially radiology installations. The objectives of the implementation policy needed to be revised. They were not fully implemented due to regulations requiring a RAH Decree to be issued by the National Police Chief.

Knowledge of the target group regarding the objectives of implementing the Radiation Hazard Allowance policy for Radiation Workers

Implementing the radiation hazard allowance policy for radiation workers requires support and participation from implementers and the target group (Radiation Workers). The results of interviews regarding the knowledge of radiation workers at health facilities regarding the objectives of policy implementation showed that radiation workers at the National Police Hospital, Ciawi Regional

General Hospital, and BNN Rehabilitation Center Clinic knew the policy's objectives for providing radiation hazard allowances—however, the majority of radiation workers needed to learn the detailed regulations. Supporting factors for knowledge of radiation workers are awareness of radiation workers to understand and study policies made by regulators and education by radiation workers through the socialization of radiation hazard allowance policies.

The facts in the field are based on the researchers' observations that there are no regulatory documents regarding radiation hazard allowance policies for radiation workers. This could also hinder the achievement of the objectives of implementing the radiation hazard allowance policy for radiation workers as contained in Presidential Decree No. 138 2014. Knowledge of radiation workers as a target group regarding the objectives of policy implementation is a factor that influences the level of achievement of the implementation of the radiation hazard allowance policy. This can be done by coordinating depending on the efforts made by the Implementor.

Resource

Resources are an essential factor in implementing a policy. The resources used in politics are different, not only human resources but also financial resources and infrastructure. Resources are also a factor that supports the success of the program. In this research, 3 (three) important aspects of resources are stated, namely. Human resources, financial resources, and infrastructure for human resource knowledge itself.

Availability of Human Resources

The implementer is human resources in implementing the additional radiation risk policy for radiation workers. Management or HR, the Head of the Finance Bureau, and Radiology Installation Management are the implementers. Implementor commitment is significant in RAH policy efforts for radiation workers. With firm commitment, support from the target group will be better.

Availability of Funding Sources and Infrastructure

As a result of interviews with the majority of informants in the research, researchers found the availability of infrastructure funding sources in implementing the radiation hazard allowance (RAH) policy for radiation workers at the NATIONAL POLICE OF THE REPUBLIC OF INDONESIA (POLRI) Hospital, Ciawi Regional General Hospital, BNN Rehabilitation Center Clinic, some stated that it was sufficient and others unfulfilled. Thus, the role of the implementer is very influential on the availability of funding sources and infrastructure, which results in the sustainability of policy implementation.

Human Resources Competency

Efforts to implement policies require good resource competency in their implementation. The resource competency in question is the competency of human resources as implementers of policy content. Limited resource competency can fail to provide radiation hazard allowances or the program's objectives not being achieved, for example, resources that do not match their expertise or educational classification.

From interviews, it was found that some of the Human Resources (HR) competencies in health facilities were appropriate. However, some needed to align with each worker's job duties and functions, and efforts were continued to develop HR competencies through training and regular knowledge updates every year.

Disposition

Disposition is the third factor that influences policy after communication and resources. Definition of attitude, namely. The character or attitude of the implementer, including honest and democratic traits. Implementers with a good mindset can implement policies correctly per the content of the policy message. Vice versa: if the implementer's attitude and vision differ from that of the decision maker, then the policy implementation process will also not be effective. The disposition factors assessed in this research include the characteristics of the implementer, including the nature of honesty and openness in solving problems between the implementer and the target in implementing the radiation hazard allowance policy for radiation workers in health facilities. The fact that the implementer's characteristics, which include honesty, democratic nature, and openness in solving problems, have been implemented is supported by the results of document observation, namely documentation of the official note on the proposal to add a RAH payment account.

Bureaucratic Structure

Even though the resources to implement a policy are available, or the implementers know what should be done and desire to implement a policy, there is still a possibility that the policy cannot be implemented due to weaknesses in the bureaucratic Structure. The first aspect is the mechanism. In implementing policies, Standard Operating Procedures (SOP) should be created. SOPs become a reference and guideline for implementers in taking action so that policy implementation is within the goals and objectives. Implementers in implementing a policy must comply with the SOP that has been determined. From the results of interviews with informants in implementing the radiation hazard allowance policy, no SOP initiates the provision of radiation hazard allowances. The application is still independent. Radiation workers must submit it to the HR department, and a specific SOP for providing RAH has never been prepared. The lack of SOP in implementing the radiation hazard allowance policy for radiation workers in health facilities could trigger the non-implementation of Presidential Regulation Number 138 of 2014. This is an essential finding for implementers to further improve the bureaucratic system by preparing SOPs based on the maker's policy. Regulations. Another aspect of the bureaucratic Structure is the complexity of the existing organizational Structure. The complexity of the existing organizational Structure includes the hospital organizational structure and the radiology installation organizational structure.

Ciawi Regional General Hospital (health facility representing Bogor district government agency)

Supporting and inhibiting factors for implementing the radiation hazard allowance policy for radiation workers at the Ciawi Regional General Hospital are revealed using the George C. Edward III implementation model approach, seen through communication, resources, disposition, and bureaucratic Structure. The relationship between these aspects in the implementation of the radiation hazard allowance policy for radiation workers in health facilities:

Communication

In this research, there are 3 (three) things in implementing the radiation hazard allowance policy, which is seen from the communication aspect, namely the Implementor's understanding and knowledge in implementing the policy, resistance in implementing the policy, and achieving policy objectives.

Understanding and Knowledge of Implementors (Health Facilities Management) in Implementing the Radiation Hazard Benefit Policy

The Implementor's understanding and knowledge in implementing the policy in question is the understanding and knowledge of the Ciawi Regional General Hospital management as the policyholder. The management of the Ciawi Regional General Hospital already understands the implementation of the radiation hazard allowance policy. As the implementer, hospital management has implemented the radiation hazard allowance policy by presidential regulation number 138 of 2014. Based on document observations and interviews, implementers already understand and implement the RAH policy.

Resistance to Implementing the Radiation Hazard Allowance Policy with Target Groups

In implementing the radiation hazard allowance policy at the Ciawi Regional General Hospital, there was no resistance among the target group. The facts in the field show that no resistance has arisen. If there are problems with hospital management and radiology, the target group will discuss them.

Achieving the Goals of the Radiation Hazard Benefit Policy for Radiation Workers in Health Facilities

To achieve policy objectives, the policies offered should be based on the target group's needs. The policy aims to obtain risk allowances for radiation workers who work in radiation fields. Management already understands the radiation hazard allowance policy, and this is by the information. The policy objective of implementing the radiation hazard allowance policy is already underway and fully implemented due to the management policy of the Ciawi Regional General Hospital.

Resource

There are 3 (three) important aspects of resources in this research, namely, the availability of human resources, funding sources and infrastructure, and the competency of human resources themselves.

Availability of Human Resources

In implementing the radiation hazard allowance policy, the resources referred to are the target group consisting of specialist radiologists, radiographers, medical physicists, admins, and radiology nurses. Based on the interview results, the availability of human resources in implementing the radiation hazard allowance policy is sufficient, and the Ciawi Regional General Hospital management has prepared the plans.

Availability of Funding Sources and Infrastructure

As a result of interviews with several informants in the research, researchers found the availability of funding sources and infrastructure in implementing the radiation hazard allowance policy at the Ciawi Regional General Hospital.

Human Resources Competency

From interviews, it was found that the competency of human resources in the radiology installation at the Ciawi Regional General Hospital was to the job duties of each worker.

Disposition

The disposition factors assessed in this research include the characteristics of the implementer, including the nature of honesty and openness in solving problems between the implementer and the target in implementing the radiation hazard allowance policy. The interview results found that the implementers' characteristics were quite honest and democratic, and there was always openness in

solving problems. The implementer's characteristics, which include honesty, democratic nature, and openness in solving problems, have been implemented and are supported by the results of document observations, namely documentation of minutes and results of routine radiology activity meetings.

Bureaucratic Structure

Even though the resources to implement a policy are available, or the implementers know what should be done and desire to implement a policy, there is still a possibility that the policy cannot be implemented due to weaknesses in the bureaucratic Structure.

The first aspect is whether there are standard operating procedures (SOP) and the complexity of the Organizational Structure. SOP becomes a reference and guideline for implementers in taking action so that policy implementation stays consistent with the policy goals and objectives. Implementers in implementing a policy must comply with the SOP that has been determined.

BNN Rehabilitation Center Clinic (health facility representing non-ministerial institutions)

Supporting and inhibiting factors for implementing the radiation hazard allowance policy for radiation workers at the BNN Rehabilitation Center Clinic are revealed using the George C. Edward III implementation model approach, seen through communication, resources, disposition, and bureaucratic Structure. The relationship between these aspects in the implementation of the radiation hazard allowance policy for radiation workers in health facilities:

Communication

In this research, there are 3 (three) things in implementing the radiation hazard allowance policy, which is seen from the communication aspect, namely the Implementor's understanding/knowledge in implementing the policy, resistance in implementing the policy, and achieving policy objectives.

Understanding and Knowledge of Implementors (Health Facilities Management) in Implementing the Radiation Hazard Benefit Policy

The Implementor's understanding and knowledge in implementing the policy in question is the understanding/knowledge of the management of the BNN Center for Rehabilitation Clinic as the policyholder. The management/HR of the BNN Rehabilitation Center Clinic does not yet understand the implementation of the radiation hazard allowance policy. Management/HR as implementers has implemented the radiation hazard allowance policy by presidential regulation number 138 of 2014. However, in 2022, the radiation hazard allowance for radiation workers will be stopped. Based on document observations and interviews, implementors still need to understand and implement the RAH policy.

Resistance to Implementing the Radiation Hazard Allowance Policy with Target Groups

In implementing the radiation hazard allowance policy at the BNN Rehabilitation Center Clinic, there was resistance among the target group (Perni et al., 2023). The facts in the field show that there is resistance that arises. If there are management / HR problems with radiology or the target group, we will discuss them together.

Achieving the Goals of the Radiation Hazard Benefit Policy for Radiation Workers in Health Facilities

To achieve policy objectives, the policies offered should be based on the target group's needs. The policy aims to obtain risk allowances for radiation workers who work in radiation fields. Management needs to understand the radiation hazard allowance policy fully, and this is through the information.

Resource

There are 3 (three) important aspects of resources in this research, namely, the availability of human resources, funding sources and infrastructure, and the competency of human resources themselves.

Availability of Human Resources

In implementing the radiation hazard allowance policy, the resources referred to are the target group of specialist radiologists, radiographers, and electronics (Nelson et al., 2023). Based on the interview results, the availability of human resources in implementing the radiation hazard allowance policy needs to be increased and not by the plans prepared by the National Narcotics Agency.

Availability of Funding Sources and Infrastructure

As a result of interviews with several informants, researchers found funding sources and infrastructure available for implementing the radiation hazard allowance policy at the BNN Rehabilitation Center Clinic. Thus, financial resources and infrastructure availability still need to be met for implementing the radiation hazard allowance policy within the National Narcotics Agency.

Human Resources Competency

From interviews, it was found that the competency of human resources in the clinical radiology installation of the BNN Rehabilitation Center was not to the job duties of each worker.

Disposition

The disposition factors assessed in this research include the characteristics of the implementer, including the nature of honesty and openness in solving problems between the implementer and the target in implementing the radiation hazard allowance policy. The interview results found that the implementers' characteristics were quite honest and democratic, and there was always openness in solving problems.

The fact that the implementer's characteristics, which include honesty, democratic nature, and openness in solving problems, have been implemented is supported by the results of document observation, namely documentation of the official note on the proposal to add a RAH payment account.

Bureaucratic Structure

Even though the resources to implement a policy are available, or the implementers know what should be done and desire to implement a policy, there is still a possibility that the policy cannot be implemented due to weaknesses in the bureaucratic Structure (Rodrik, 2018).

The first aspect is whether there are standard operating procedures (SOP) and the complexity of the Organizational Structure. SOP becomes a reference and guideline for implementers in taking action so that policy implementation stays consistent with the policy goals and objectives. Implementers in implementing a policy must comply with the SOP that has been determined.

CONCLUSION

Based on the results of the analysis that has been presented, it can be concluded that the implementation of the radiation hazard allowance policy at the National Police of The Republic of Indonesia (POLRI) Hospital has not been carried out and is not by presidential regulation number 138 of 2014. An implementation that has yet to be fully implemented includes: Implementors need to fully understand and implement the hazard allowance policy radiation due to the functional allowances currently provided—implementation of the radiation hazard allowance policy for radiation workers at the Ciawi Regional General Hospital. Implementors have fully understood and implemented the

radiation hazard allowance policy for radiation workers—implementation of the radiation hazard allowance policy for radiation workers at the BNN Rehabilitation Center Clinic. The implementation of the radiation hazard allowance policy has not been thoroughly carried out, and this is because implementers need to fully understand the policy by presidential regulation number 138 of 2014.

Bureaucratic Structure The bureaucratic Structure is simple, and the inhibiting factors in implementing the radiation hazard allowance policy at the Ciawi Regional General Hospital in terms of Communication No Resources. There are no barriers to resources Disposition. There are no barriers in the disposition factors. **Bureaucratic Structure** There are no barriers in the structure factors bureaucracy, BNN Rehabilitation Center Clinic (Non-Ministerial Institution Health Facilities) Communication, Implementor understands the policy for providing Radiation Hazard Allowances and the policy objectives are achieved for the payment of functional allowances. **Bureaucratic Structure** The bureaucratic Structure is simple, and the inhibiting factors in implementing the radiation hazard allowance policy at the BNN Rehabilitation Center Clinic are: Communication Management does not fully understand and implement the RAH policy. Resources there is no availability of funding sources and infrastructure for RAH Disposition There are no inhibiting factors in disposition factors. **Bureaucratic Structure** The absence of SOPs in the RAH policy makes RAH.

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