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Evaluation of Hospital Readiness and Strategic Planning in Implementing the Priority Cancer Service Mentorship Program (Qualitative Study at Anutapura Hospital, Palu, and Torabelo Hospital, Sigi)

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Cancer is one of the catastrophic diseases that requires high treatment costs, long-term care, and poses a significant burden on the health system. In Indonesia, there are 514 hospitals stratified according to their expected capacity to provide cancer services; however, assessments in Central Sulawesi Province revealed that network hospitals remain at the basic level. This phenomenon highlights a gap between the growing need for cancer services and the actual capacity of hospitals. This study aims to evaluate the readiness of available resources and to analyze the strategic planning of hospitals in supporting the implementation of priority cancer service programs. A qualitative method with a case study design was applied, using interviews, observations, and document reviews. Data were analyzed through the stages of data reduction, data display, and conclusion drawing. The findings indicate that Anutapura Palu Hospital has reached an intermediate level with better readiness in terms of input, process, and product, while Torabelo Sigi Hospital remains at the basic level with significant limitations in human resources, facilities, operational documents, and funding. Strategic planning at Anutapura Palu Hospital has been more adaptive, enabling faster operationalization of cancer services, while Torabelo Sigi Hospital requires acceleration in governance documents, infrastructure development, and technical assistance. This study emphasizes that the success of cancer service implementation is highly determined by input readiness, process effectiveness, product outcomes, and adaptive strategic planning.
Keywords: Hospital Readiness, Strategic Planning, Cancer Mentorship Program

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1. Introduction

Cancer is one of the leading causes of death worldwide, including in Indonesia, where it ranks third after stroke and heart disease (Ministry of Health, 2024). According to data from the World Health Organization (WHO, 2022), cancer caused nearly 10 million deaths globally in 2020. In Indonesia, the Global Cancer Observatory (Globocan, 2023) estimates there are 408,661 new cancer cases and 242,988 deaths per year. More concerning, more than 70% of cancer patients are diagnosed at an advanced stage, worsening the prognosis and increasing treatment costs (Ministry of Health, 2024).

In Central Sulawesi Province, cancer cases have shown a significant increase. Hospital Information System (SIRS) data from 2022–2024 recorded a surge in outpatient visits for cancer patients from 4,227 in 2022 to 20,256 in 2024, with 7,360 new cases identified and 351 deaths of inpatients. This trend underscores the urgency of strengthening the province's cancer service capacity to address the growing patient burden.

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Figure 1. Trends In Visits, New Cases, Inpatient Cancer Patients, And Deaths In Central Sulawesi Province 2022–2024

The high demand for cancer services in Central Sulawesi Province presents a significant challenge to the still-limited hospital capacity (Health Office, 2024). Although the government has been encouraging hospital competency improvement through a priority service network program since 2022, the gap between service needs and hospital capacity remains complex (Ministry of Health, 2024). This program focuses on strengthening human resources (HR), facilities, infrastructure, and medical equipment through collaboration between the host hospital and the hospitals they serve.

Research by Desika Santi et al. (2024) confirms that the competency of healthcare workers and the work environment significantly influence the quality of teamwork, making human resource capacity building crucial (Santi, Desika; Purwadhi; Andiriani, 2024). Initial assessment results in 2022 showed that most of the 13 district/city hospitals under management were still at the basic level and unable to provide chemotherapy services up to intermediate level standards. The Ministry of Health (2024) added that only 30% of the 514 district/city hospitals in Indonesia had complete facilities for cancer diagnosis and treatment.

Experience of Dr. Soetomo General Hospital. Sardjito Hospital in Yogyakarta demonstrated that comprehensive facilities and multidisciplinary specialist staff enable comprehensive cancer care (Atmim Rizki Fitriani, Elystia Vidia Marselina, 2022). To improve access and quality of oncology services in Central Sulawesi, Anutapura Hospital in Palu and Torabelo Hospital in Sigi were appointed as supporting hospitals, amidst a significant increase in cancer patient visits. The challenges faced are both clinical and managerial: clinically, precise and rapid services are required, and managerially, adaptive strategies to manage patient growth are needed.

Research by Nuramalia and Andriani (2023) emphasizes a positive organizational culture as a key driver of employee performance, effective when supported by a Management Information System (MIS) and synergy between work units. This emphasizes the importance of synchronizing infrastructure readiness and strengthening organizational culture for quality cancer care. The challenges in Central Sulawesi align with the findings of Prasetya et al. (2023) regarding the difficulty of accessing cancer patients outside Java, as well as Atmim Rizki Fitriani (2022), who emphasized the importance of human resources and supporting facilities.

Putra et al. (2024) showed that digital technologies—such as SIMRS, RME, digital marketing, telemedicine, and AR—can improve service efficiency, reduce operational costs, and increase patient satisfaction. However, previous research has not highlighted hospital readiness and strategic planning in priority cancer service delivery programs.

To address this gap, the study adopted an integrative approach, combining Daniel Stufflebeam's (2003) CIPP (Context, Input, Process, Product) evaluation theory in Malik Ibrahim (2018) and Duncan's (2018)

strategic management theory in Ayuningtyas (2022). The focus on input, process, and product evaluation supports the findings of Fatmawati et al. (2021), who stated that health program failures are often caused by weak coordination and infrastructure, as well as constraints on specialist human resources, medical equipment, and budget (Atmim Rizki Fitriani, 2022; Prasetya et al., 2023).

Duncan's (2018) strategic management theory was used to formulate concrete steps to achieve program objectives. Purwadhi et al. (2024) demonstrated that effective strategic management improves operational efficiency and patient satisfaction through strengthening human resources and utilizing information technology (Widjaja et al., 2024). Wulandari et al. (2025) emphasized the importance of a clear organizational structure and appropriate standard operating procedures (SOPs). Anetta Lesmana et al. (2023) emphasized that effective organizational communication and leadership policy implementation directly impact healthcare worker satisfaction, thus impacting the quality of hospital services.

The integration of these two approaches provides a comprehensive framework for assessing hospital readiness while generating evidence-based recommendations for the sustainability of the priority cancer care program. This research is expected to contribute to the equitable distribution of cancer services in Central Sulawesi and serve as a model for developing similar programs in other regions. The research title is: "Evaluation of hospital readiness and strategic planning in implementing the priority cancer care program (Qualitative study at Anutapura Hospital, Palu, and Torabelo Hospital, Sigi)."

Based on the above background, the objectives of this study are: (1) To evaluate the availability of resources (inputs) at Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, to support the implementation of the priority cancer care program in Central Sulawesi Province. (2) To evaluate the alignment of the readiness process of Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, with the care program guidelines from the Ministry of Health. (3) Identifying the achievement of readiness targets for implementing the priority cancer service support program at Anutapura Hospital, Palu and Torabelo Hospital, Sigi. (4) Identifying the formulation of strategies implemented by Anutapura Hospital, Palu and Torabelo Hospital, Sigi in supporting the implementation of the priority cancer service support program in Central Sulawesi Province. (5) Analyzing the implementation plan for strategies implemented by Anutapura Hospital, Palu and Torabelo Hospital, Sigi in supporting the priority cancer service support program in Central Sulawesi Province.

2. Method

This research was conducted at two hospitals serving as the focus of the development of a priority cancer care program in Central Sulawesi Province: Anutapura Hospital, Palu, and Torabelo Hospital, Sigi Regency, from May to July 2025. Anutapura Hospital, Palu, is a Class B hospital located in the center of Palu City and serves as the primary referral hospital with a strategic role in handling cancer cases at the provincial level. Torabelo Hospital, Sigi, is a Class C hospital located in the buffer zone of Palu City and serves as a referral gateway from surrounding districts. Therefore, it is relevant to examine the challenges of strengthening cancer services in facilities with limited resources.

This research used a qualitative approach, as described by Endang Komara, Syaodih Erliany, and Andriani (2022), with the aim of gaining a deeper understanding of the hospitals' readiness and strategic planning. This approach aligns with the views of Catherine Marshal (1995) in Sarwono (2006), who emphasized that qualitative research aims to capture the complexity of human interactions. The research used a case study format, as proposed by Prof. Dr. H. Mudjia Rahardjo, M.Si (2017), is a scientific study conducted intensively and in-depth on a program or activity to gain a comprehensive understanding.

The study participants were six people selected using purposive sampling according to the participant criteria according to Sugiyono (2019) and Hardani et al. (2020), namely individuals who understand, are directly involved in, and have sufficient time to participate in the program being studied. Informants consisted of key informants and supporting informants from the management of Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, including deputy directors, directors, heads of divisions, and heads of sections related to services and planning.

Data collection was conducted using triangulation techniques, as described by Sugiyono (2008) in Guswandi (2017), utilizing primary and secondary data. Primary data was obtained through in-depth, directed interviews and participant observation, while secondary data was collected through document reviews, such as regulations, strategic plans, human resource data, infrastructure, and reports on the implementation of the cancer care program. Data validity was maintained through triangulation of sources and methods, comparing information between informants and between data collection techniques.

Data analysis was conducted continuously, from problem formulation to writing up the research results. Referring to Miles and Huberman in Guswandi (2017), analysis was conducted through data reduction, narrative data presentation, and interactive conclusion drawing. These stages aimed to produce conclusions that could answer the problem formulation related to evaluating hospital readiness and strategic planning in implementing the priority cancer service coverage program in Central Sulawesi Province.

3. Results and Disccusion

Research Results

Results of the Input Evaluation of the Readiness and Strategic Planning of Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, in Implementing the Priority Cancer Service Program

Human resource readiness at Anutapura Hospital, Palu, indicates a relatively mature condition, as core cancer service personnel are available, including internal medicine specialists, hematology and oncology consultants, surgical oncologists, basic and advanced chemotherapy nurses, pharmacists trained in cytotoxic compounding, and cancer registry staff. Therefore, chemotherapy services have been operational since October 1, 2024, and are credentialed by BPJS Kesehatan. The hospital also conducts in-house training to ensure equitable competency, but still faces the need for additional personnel due to the increasing number of patients. In contrast, Torabelo Hospital, Sigi, only has basic specialists in radiology, surgery, anatomical pathology, internal medicine, and anesthesia, but lacks key personnel such as subspecialist oncology surgeons, trained chemotherapy nurses, and pharmacists with cytotoxic management competencies.

In terms of facilities, infrastructure, and equipment, Anutapura Hospital in Palu has prepared a chemotherapy room through the conversion of treatment rooms, and services are already underway with support from the Ministry of Health through the Special Allocation Fund (DAK) and the SIHREN foreign loan. These include CT scans, mammography, biosafety cabinets, early detection ultrasound, flow cytometry, and an oncology surgery operating room. Meanwhile, Torabelo Hospital in Sigi has prepared an oncology clinic and completed construction of a cytotoxic building. However, key equipment is still being procured and delivered, with significant constraints on electricity capacity to operate the modern equipment. Anatomical pathology services are available but are still limited to liquid preparations, while solid samples must be referred to other hospitals.

Funding at Anutapura Hospital in Palu comes from the Regional Public Service Agency (BLUD), with additional support from the Ministry of Health for space and equipment procurement. Human resource training is primarily funded by the BLUD and national schemes. The BLUD covers cancer drug availability, but this is insufficient, prompting management to request an additional Regional Budget (DAU) budget of approximately IDR 5.4 billion in the first quarter to ensure service continuity. At Torabelo Sigi Hospital, funding for human resource training from the Regional Public Service Agency (BLUD) remains limited due to competing needs for other services. There is also a significant funding requirement for additional electricity capacity, amounting to IDR 2.83 billion, which requires external support.

From a regulatory perspective, Anutapura Hospital, Palu, has a Memorandum of Understanding (MoU) and a Joint Working Agreement (PKS) with its affiliated hospitals, Hasan Sadikin Hospital and Darmais Hospital. It also established an internal team decree with a clear division of roles before the service launched. Torabelo Sigi Hospital also has an MoU and Joint Working Agreement with its affiliated hospitals, but the established Working Team has not been updated and lacks clear job descriptions.

Based on the researcher's analysis, Anutapura Hospital, Palu, is at the operational stage because core human resources are available, chemotherapy services are operational and accredited by the National Health Insurance Agency (BPJS), and is supported by adequate regulations. Although it still faces budget constraints for advanced training, infrastructure, equipment, and cancer registry standardization. On the other hand, the readiness of Torabelo Sigi Hospital is still at the basic stage, marked by the existence of internal commitment and initial infrastructure such as oncology polyclinic, cytotoxic building, and RME support, but cancer services have not yet been implemented because they are waiting for the arrival of equipment, fulfillment of HR competencies, strengthening of electrical power, BPJS Kesehatan credential process, and the unavailability of SOP documents and program reporting systems.

Results of the Process Evaluation of the Readiness and Strategic Planning of Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, in Implementing the Priority Cancer Services Program

In the initial planning stage, Anutapura Hospital, Palu, demonstrated relatively strong readiness by establishing a working group decree (SK) before the service launch, completing job descriptions for each member, and conducting internal outreach. Regulations in the form of a Memorandum of Understanding (MoU) and a Working Group Agreement (PKS) with the supporting hospital have been signed, although they have not yet been translated into operational work programs. Digital support is strong because the RME is integrated from registration to consultation, and cancer registry officers are available, although registry data standardization still needs to be strengthened for consistency. Conversely, Torabelo Hospital, Sigi, experienced confusion in the initial phase due to limited technical guidelines and support, despite the MoU and PKS being signed. The working group decree had not been updated and lacked clear job descriptions, resulting in an unstructured direction for the implementation of the priority cancer services program.

In the process of strengthening resources, Anutapura Hospital, Palu, implemented a "parallel run" strategy, preparing facilities, equipment, administration, and approaches to the National Health Insurance (BPJS) simultaneously while human resources underwent education and training. This strategy expedited the BPJS credentialing process, allowing chemotherapy services to commence on October 1, 2024, and surgical oncology services on January 1, 2025. At Torabelo Sigi Hospital, the "HR first" strategy was adopted, prioritizing the competency development of doctors, nurses, and pharmacists before fully launching services. Although this strategy was supported by internal staff motivation and initial

infrastructure readiness, such as the oncology clinic, CT scan building, cytotoxic building, and RME integration, the lack of key equipment and limited electricity capacity still hampered service activation.

The onboarding process at both hospitals remains limited to coordination and telementoring via WhatsApp and Zoom, without being incorporated into standardized work documents and reporting systems. Anutapura Palu Hospital has developed SOPs for cancer services, both for outpatient one-day care chemotherapy and inpatient care, using a bottom-up approach involving service units, pharmacists, and clinicians. In contrast, Torabelo Sigi Hospital does not yet have a cancer service SOP, teamwork program, or reporting mechanism because the oncology service has not yet opened and the BPJS credentialing process is still ongoing. Therefore, cancer patients are currently being managed in the internal medicine clinic and referred to Anutapura Palu Hospital.

Monitoring and evaluation at Anutapura Hospital, Palu, have been conducted routinely on a monthly and annual basis across units. The results are used to adjust service capacity, such as adding beds and staff due to the surge in patients. Although output and outcome indicators have not been established, and evaluation results have not been formally documented. At Torabelo Hospital, Sigi, formal monitoring and evaluation have not yet been implemented, although weekly meetings are held. Performance indicators have not been established, and evaluation of service standards remains manual and has not been compiled into a systematic report.

Based on the researchers' analysis, the process at Anutapura Hospital, Palu, is considered effective because planning, resource strengthening, support networks, SOPs, integrated RMEs, BPJS credentials, and the utilization of monitoring and evaluation results have supported the operation of cancer services. Although further indicator development, evaluation documentation, and registry standardization are still needed. Meanwhile, Torabelo Sigi Hospital shows an ongoing readiness process with management commitment, coordination of caretakers, infrastructure preparation, and the right "HR first" strategy, but has not yet reached the operational stage due to equipment constraints, electricity capacity, uneven HR competency, SOPs and indicators not yet being formulated, and still awaiting BPJS credentials, thus requiring more intensive technical assistance and synchronization between HR, utilities, and logistics.

Product Evaluation Results of the Readiness and Strategic Planning of Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, in Implementing the Priority Cancer Service Program

Findings indicate that Anutapura Hospital, Palu, has reached the operational stage of cancer services, marked by the opening of BPJS-certified chemotherapy and surgical oncology services and actively serving patients. The availability of key infrastructure and equipment, such as chemotherapy rooms, operating rooms, CT scans, mammograms, biosafety cabinets, and flow cytometers, supports tangible clinical outcomes. Access to services has also improved, reflected in increased visits and almost daily chemotherapy administration. Management has responded by adding beds and staff, while also reducing patient referrals from outside the region, thus reducing the burden of non-medical costs on the community. In terms of data systems and governance, the hospital has integrated RME (Emergency Medical Record) and prepared cancer registry personnel, supported by MoUs, PKS (Commitment Agreements), team decrees, and SOPs. Although registry standardization and limited capacity for rooms, drugs, and BHP remain challenges.

In contrast, Torabelo Sigi Hospital is still in the initial readiness stage because its oncology clinical services are not yet operational due to limited core human resources, the lack of key personnel and supporting competencies, and the ongoing BPJS Kesehatan credentialing process, although collaboration with oncology surgeons has been planned. Basic infrastructure, such as an oncology clinic, CT scan building,

and cytotoxic building, is in place, and RME has been implemented with the support of cancer registry personnel. However, key equipment is still being procured. In terms of governance, although a Memorandum of Understanding (MoU), a Contract of Work (PKS), and a team decree are in place, the lack of SOPs, work programs, and reporting mechanisms makes it impossible to measure quality control and clinical outcomes. The researchers' analysis confirms that the achievements of Anutapura Palu Hospital reflect the initial success of the program, with a tangible impact on patient access and referrals. While Torabelo Sigi Hospital is still producing enabling outputs, it requires completion of credentialing, equipment, and governance enhancements to operationalize oncology services.

Strategy Formulation at Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, to Support Preparedness and Strategic Planning for the Implementation of the Priority Cancer Care Program

Findings indicate that the policy and governance framework at Anutapura Hospital, Palu, was developed based on an evaluation of the high trend of cancer patient visits and referrals, particularly for surgical oncology, along with identification of human resource and infrastructure needs in accordance with intermediate stratification standards. However, the development of the priority cancer care program has not been integrated into the hospital's vision, mission, or strategic plan because the regulations for the care program were issued during a transitional period, resulting in financial support not being specifically included in the work budget plan. Nevertheless, program implementation has been strengthened by a Memorandum of Understanding (MoU), a Partnership Agreement (PKS), and a work team decree, although a written work program and systematic strategic analysis documentation are not yet available. At Torabelo Hospital, Sigi, since its designation as a care facility, management has evaluated the increase in cancer patient visits and identified resources, which then serve as the basis for planning for human resource, infrastructure, and equipment provision. The MoU and PKS regulations are in place, but the lack of a work program and reporting procedures has resulted in poorly documented strategy formulation.

The capacity development strategy at Anutapura Hospital in Palu is implemented through a parallel approach: improving human resource competency through training and education, along with providing standard infrastructure and equipment. This is complemented by early persuasive approaches to BPJS Kesehatan (Social Security Agency for Health) to ensure services can be operational when the resources are ready. This strategy is reinforced by developing SOPs with relevant specialists, strengthening the cancer registry, implementing multidisciplinary monitoring and evaluation, and aligning drug and BHP policies with clinical needs. Meanwhile, Torabelo Hospital in Sigi implements a "human resources first, equipment second" strategy by promoting training, preparing for RME integration, opening an oncology clinic, collaborating with human resources from Anutapura Hospital in Palu, and promoting services. However, this is not yet supported by SOPs and a clear work plan.

In terms of funding and partnerships, Anutapura Hospital in Palu combines funds from the Regional Public Service Agency (BLUD), the General Allocation Fund (DAU), and support from the Ministry of Health for chemotherapy rooms, medical equipment, and human resource training. In contrast, Torabelo Hospital in Sigi still relies on BLUD and Ministry of Health support, particularly for human resource training, while the need for major investments such as increasing electricity capacity remains a major obstacle. The researcher's analysis shows that Anutapura Hospital, Palu, has achieved strategic alignment with its environment through a planned capability-building approach. The provision of human resources, infrastructure, and funding legitimacy are implemented in parallel, minimizing the gap between readiness and service operations. The existence of team decrees, standard operating procedures (SOPs), medical record management (RME), and a cancer registry, as well as cross-unit monitoring, strengthen strategic control and enable data-driven adjustments. In contrast, Torabelo Hospital, Sigi, is still in the initial

strengthening stage because the focus on human resources and infrastructure has not been balanced with strengthening operational documents, in-depth situational analysis, and technical assistance. This creates a gap between initial readiness and the lack of clinical services due to the awaited BPJS Kesehatan credentials and equipment assistance from the Ministry of Health.

Strategy Implementation Plans at Anutapura Hospital, Palu, and Torabelo Hospital Support the Readiness and Strategic Planning for the Implementation of the Priority Cancer Care Program

The implementation of the priority cancer care program demonstrates differences in the level of strategic maturity at the two hospitals. Anutapura Hospital, Palu, designed a parallel implementation approach, whereby the provision of human resources, infrastructure, and medical equipment, and the preparation of funding through BPJS are carried out simultaneously. This strategy is reinforced by strengthening governance through team decrees and operational documents, supporting the digitalization of the RME and cancer registry, developing human resource capacity, actively partnering with supporting hospitals, and periodically monitoring and evaluating strata achievement. This parallel approach shortens the time between readiness and service opening because the BPJS credentialing process has been prepared from the beginning of service setup.

In contrast, Torabelo Sigi Hospital implemented a tiered strategy, prioritizing human resource requirements first, followed by equipment procurement and coordination with BPJS Kesehatan before opening services. Management also prepared an oncology clinic, increased human resources through Ministry of Health assignments and fellowships, supported information digitization, and planned mentoring and in-house training. However, the lack of SOPs and work plans to guide operations slowed the transition from initial readiness to fully operational services.

The researchers' analysis shows that a clear critical path significantly determines the speed of program implementation. Anutapura Hospital, Palu's parallel strategy allows for simultaneous strengthening of human resources, infrastructure, and funding legitimacy, allowing services to be launched immediately after minimum prerequisites are met. The existence of control documents, such as team decrees and standard operating procedures (SOPs), serves as a binding force for cross-unit strategies, facilitating oversight and rapid adjustments when service loads increase. At Torabelo Hospital, Sigi, the lack of operational documents has resulted in implementation relying more on individual practice, exacerbated by delays in technical instructions, resulting in strategic direction not being fully internalized into standard work procedures.

In terms of data systems, both hospitals have utilized EMR, but Anutapura Hospital, Palu, still requires standardization of its cancer registry so that outcome indicators can be consistently tracked and used as a basis for evidence-based decision-making. In terms of partnerships and learning, Anutapura Hospital, Palu, is making better use of MoUs, PKS, and telementoring to accelerate competency diffusion, while Torabelo Hospital, Sigi, still requires on-site mentoring and in-house cross-professional training to structure the learning process. Financing and infrastructure support are key differentiators. Anutapura Hospital, Palu, has combined BLUD (General Public Service Agency), DAU (General Allocation Fund), and support from the Ministry of Health, while Torabelo Hospital, Sigi, still requires more detailed funding planning, particularly for increasing electricity capacity. Overall, the effectiveness of program implementation is largely determined by a clear critical path, robust operational documents, and the support of data systems, partnerships, and realistic funding. Anutapura Hospital, Palu, has reached the middle level, while Torabelo Hospital, Sigi, still requires acceleration in these aspects.

Discussion

Results of the Input Evaluation of the Readiness and Strategic Planning of Anutapura Hospital, Palu, and Torabelo Hospital in Implementing the Priority Cancer Service Program

Intermediate level network hospitals are required to be able to provide cancer services, including tumor surgery and systemic therapy, supported by human resources, infrastructure, equipment, and governance that meet standards. These four input components are interrelated and are absolute prerequisites for service readiness, as emphasized by Fitriani et al. (2022), and aligns with the CIPP evaluation framework, which places input readiness as a key determinant of successful program implementation.

The study results show that Anutapura Hospital, Palu, has met the intermediate standard, while Torabelo Hospital, Sigi, remains at the basic level. At Anutapura Hospital, tumor surgery and systemic therapy services are operational, supported by complete equipment, available operating rooms, and adequate core human resources, including surgical oncologists, internal medicine specialists, hemato-oncology consultants, chemotherapy nurses, cytotoxic-trained pharmacists, and cancer registry personnel. Chemotherapy services are operational and BPJS-credentialed, radiodiagnostics are supported by CT scans and mammography, and anatomical pathology and immunohistochemistry are at the operational readiness stage. This puts Anutapura Hospital, Palu, in the operational phase with tangible clinical outcomes.

In contrast, Torabelo Hospital, Sigi, still faces significant input gaps. Although the oncology clinic, CT scan building, and cytotoxic building are available, key equipment is still being completed, electricity capacity is inadequate, and key human resources are missing, particularly subspecialist oncology surgeons, chemotherapy-trained nurses, pharmacists and pharmacy technicians with cytotoxic handling competencies, and anatomical pathology ATLMs. Systemic therapy and surgical oncology services cannot yet be operational due to the need for human resources, equipment, and the BPJS credentialing process, so clinical outcomes cannot yet be measured.

These findings support Gondhowiardjo (2021) who stated that the main obstacles to developing cancer services in the regions are the unequal distribution of oncology human resources and limited diagnostic facilities. This finding aligns with Scott and Hoskin (2024) who noted that the shortage of specialists remains a challenge even in more advanced health systems. Desika Santi et al. (2023) also emphasized that strengthening human resource competency is key to regional hospitals being able to meet priority service standards.

From a governance and regulatory perspective, both hospitals have MoUs and PKS with their affiliated hospitals, but these have not been translated into concrete work plans. As a result, the implementation of these partnerships remains largely administrative and not fully operational, as Putri Sari et al. (2024) warned that without a managerial strategy and effective collaboration mechanisms, collaboration does not produce tangible change. In the context of CIPP, this situation indicates weaknesses in the input component that risk hampering the program's processes and output.

Organizationally, Anutapura Hospital in Palu has established a work team with job descriptions and conducted internal strengthening through in-house training, although the formal work program still needs clarification. At Torabelo Hospital in Sigi, the team structure has not been updated, and job descriptions and work programs are not yet available, resulting in a lack of direction in planning for the fulfillment of the middle level. This aligns with the findings of Wulandari et al. (2025) that a clear organizational structure, SOPs, and cross-unit coordination correlate with efficiency and service quality.

Overall, differences in input readiness reflect differences in organizational readiness, which directly impact the speed of program implementation. Anutapura Hospital, Palu, needs to focus on further steps to standardize the cancer registry and sustain drug funding to maintain stable operational capacity. Meanwhile, Torabelo Hospital, Sigi, prioritizes improving its organizational structure, developing work programs and chemotherapy SOPs, securing key human resources, ensuring reliable electrical infrastructure, preparing equipment, and accelerating BPJS (Social Security Agency) credentialing. With this focus, the implementation of the priority cancer care program is expected to be more effective, safe, and sustainable.

Results of the Process Evaluation of the Readiness and Strategic Planning of Anutapura Hospital, Palu, and Torabelo Hospital in Implementing the Priority Cancer Care Program

Implementing the priority cancer care program requires a series of planned activities to meet the capacity standards of the supported hospitals to achieve effectiveness, quality, and equity in cancer services. Within the support network framework, activities are implemented based on agreements between the supporting and supported hospitals through online, offline, or a combination of methods, with the aim of improving the competency of priority services. From the CIPP model, the process evaluation focuses on assessing the alignment between plans and implementation through coordination mechanisms, field activities, and implementation support.

The study results show that Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, both have good initial commitments, but still face structural and operational challenges. In terms of planning and organization, Anutapura Hospital, Palu, has demonstrated readiness through the formation of a Team Decree complete with job descriptions, internal socialization, and comprehensive integration of Electronic Medical Records from registration to consultation. However, follow-up to the PKS has not been outlined in a detailed work program, and standardization of the cancer registry still needs to be strengthened. In contrast, Torabelo Hospital, Sigi, still faces constraints in the planning stage due to limited technical guidance and assistance. The established Team Decree has not been updated and does not include job descriptions, resulting in a lack of structure in program implementation. This condition aligns with the findings of Wulandari et al. (2025) who emphasized the importance of organization, clear SOPs, and cross-unit coordination to improve service efficiency.

To strengthen human resources and infrastructure, Anutapura Hospital in Palu implemented a "parallel run" strategy by preparing space, equipment, and coordinating with the Social Security Agency (BPJS) simultaneously with improving human resource competency. This strategy proved effective, as chemotherapy services could begin on October 1, 2024, and oncology surgery on January 1, 2025. Torabelo Hospital in Sigi chose a "human resource first" approach, prioritizing training for clinicians, nurses, and pharmacists before opening services. However, its implementation was hampered by limited equipment, electricity capacity, and equal competency distribution. From Duncan's strategic management perspective, the strategy's effectiveness is determined by the balance between internal capabilities and external factors. Equipment support from the Ministry of Health through SIHREN presents an opportunity for both hospitals, but Torabelo Hospital in Sigi still needs to align human resource readiness with equipment procurement and strengthening basic utilities. These findings align with Fitriani et al. (2022) and Purwadhi et al. (2024), who emphasized the importance of synergy between human resources and infrastructure in implementing integrated cancer services.

In terms of the implementation of caregiving, the process at both hospitals remains dominated by online coordination and telementoring via WhatsApp and Zoom. Anutapura Hospital, Palu, has developed SOPs

for cancer services, both day care and inpatient care, using a bottom-up approach involving relevant units and in close coordination with pharmacists and clinicians. In contrast, Torabelo Hospital, Sigi, does not yet have SOPs for cancer services, work programs, or output reporting mechanisms because oncology services are not yet operational and the BPJS credentialing process is still ongoing. This finding is consistent with Gondhowiardjo et al. (2021), who emphasized the importance of technical guidelines and effective coordination within the cancer service network, and is reinforced by Aneta Lesmana et al. (2023) regarding the role of clear organizational communication in policy implementation. Therefore, Torabelo Hospital, Sigi, requires intensive technical assistance to develop SOPs, registries, and reporting flows in accordance with national standards.

In terms of monitoring and evaluation, Anutapura Hospital, Palu, has conducted routine cross-unit evaluations and utilized the results for adaptive decision-making, such as adding beds and staff due to the surge in chemotherapy patients. However, output and outcome indicators have not been formally defined, and evaluation documentation has not been compiled in accordance with guidelines. Torabelo Hospital, Sigi, does not yet have a formal monitoring and evaluation system. Evaluation is still manual and poorly documented. Purwadhi et al. (2024) emphasized that performance indicator-based monitoring is key to effective strategic management, so both hospitals need to establish measurable indicators, develop a standardized monitoring system, and strengthen evaluation documentation.

Overall, these findings confirm that the success of the priority cancer care program is largely determined by adaptive strategic planning, human resource and infrastructure synergy, the availability of clear SOPs and work mechanisms, and performance indicator-based evaluation, as emphasized by Fitriani et al. (2022), Gondhowiardjo et al. (2021), and Wulandari et al. (2025). The combination of these factors is key to ensuring effective and sustainable implementation of the care program at the hospital level.

Results of the Product Evaluation of the Readiness and Strategic Planning of Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, in Implementing the Priority Cancer Care Program

The evaluation of the product dimension within the CIPP framework focuses on the actual achievements of program implementation compared to established targets. Research findings indicate a clear gap between Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, in this dimension.

Anutapura Hospital, Palu, has achieved its target coverage at the middle level, as evidenced by the operation of chemotherapy and surgical oncology services, which are credentialed by BPJS Kesehatan and actively utilized by patients. A direct impact of this achievement is a decrease in cancer patient referrals outside the region, resulting in closer access to services and reduced patient non-medical costs. This situation aligns with the findings of Ivana Utomo et al. (2023), who emphasized that the availability of cancer services and facilities in the region contributes to increased accessibility and cost efficiency for patients.

In contrast, Torabelo Hospital, Sigi, remains at the basic level. Although initial infrastructure, such as an oncology clinic and a cytotoxic building, is in place, clinical cancer services are not yet operational due to limited key human resources, essential equipment, and an incomplete BPJS credentialing process. From a CIPP perspective, this situation reflects a lack of synchronization between input and process, resulting in the failure to achieve tangible service outcomes.

From Duncan's strategic management perspective, the effectiveness of product outcomes is largely determined by an organization's ability to align internal capacity with external demands. Anutapura Hospital, Palu, was relatively successful in integrating human resource readiness, infrastructure, and regulatory support, enabling it to operationalize cancer services relatively quickly. In contrast, Torabelo

Hospital, Sigi, still faces gaps in human resource readiness, supporting infrastructure such as electricity, and operational governance, resulting in product outcomes not being realized. This finding aligns with Karisma et al. (2023), who emphasized that synchronizing internal resources and external factors is a key determinant of strategic management effectiveness.

The effectiveness of organization and governance also directly impacts program outcomes. Anutapura Hospital, Palu, has established a team decree, service standard operating procedures (SOPs), and integrated RME (Mechanical Engineering), making it better prepared to produce measurable clinical outcomes. Conversely, Torabelo Hospital, Sigi, which has not yet completed its governance framework, faces challenges in ensuring the quality and consistency of service outcomes. This confirms the findings of Wulandari et al. (2025) and Lia Nurmalia et al. (2023) emphasized that a clear organizational structure, standard operating procedures (SOPs), cross-unit coordination, and an adaptive organizational culture play a crucial role in the successful implementation of health programs.

In terms of infrastructure and human resource support, Anutapura Hospital, Palu, already has key diagnostic and support facilities such as CT scans, mammograms, biosafety cabinets, and flow cytometers, enabling optimal clinical services. Torabelo Hospital, Sigi, is still in the equipment procurement stage, delaying the readiness of cancer service products. This finding aligns with Fitriani et al. (2022) and Desika Santi et al. (2023), who stated that human resource competency and completeness of facilities are key determinants of cancer service quality.

In terms of monitoring and evaluation, Anutapura Hospital, Palu, has conducted routine evaluations but has not yet established output and outcome indicators in accordance with the program's guidelines. Consequently, there remains a gap between actual achievements and objective measures of success. Torabelo Hospital, Sigi, does not even have a formal monitoring and evaluation mechanism, which implies weak service quality control. This situation aligns with Purwadhi et al. (2024) and Anetta Lesmana et al. (2023) emphasized the importance of performance indicators, reporting mechanisms, and information transparency in supporting evaluation and strategic decision-making.

Overall, in terms of product dimensions, Anutapura Hospital in Palu has reached the tangible product stage with a direct impact on access to and utilization of cancer services, although it still faces challenges in registry standardization, quality indicators, and drug sustainability. Meanwhile, Torabelo Hospital in Sigi remains in the potential product phase, where services have not yet generated clinical impact due to unprepared human resources, infrastructure, and governance. This finding aligns with Babadi et al. (2024) and Wiguna (2020), who assert that without synchronized input and process, program outcomes tend to stall at the administrative level without generating tangible benefits for patients.

Therefore, policy strengthening needs to be directed at service delivery outputs through accelerating direct technical assistance, integrating the supervision system between supporting hospitals and the Ministry of Health, and developing a service indicator-based monitoring system. This approach is considered the most representative for assessing the success of the program's implementation of priority cancer services in a substantive and sustainable manner.

Formulation of Strategies at Anutapura Hospital, Palu and Torabelo Hospital, Sigi in Supporting the Readiness and Strategic Planning for the Implementation of Priority Cancer Service Support Programs

Anutapura Hospital in Palu has a relatively clear policy framework, supported by a Memorandum of Understanding (MoU), a Joint Working Agreement (PKS), and a Team Decree. It has also identified human resource and infrastructure needs in accordance with the middle-level stratification standard. However, the caregiving strategy has not been fully integrated into the hospital's vision, mission, and budget work

plan because this policy emerged after the strategic plan was established, creating a gap between formal regulations and strategic documentation. This situation aligns with the CIPP principle, which emphasizes the importance of aligning policies with actual needs. Conversely, Torabelo Hospital in Sigi has conducted a situational analysis regarding cancer patient trends and resource readiness, but the strategy formulation has not been incorporated into operational documents such as work programs and reporting procedures. In other words, the context and regulations are in place, but have not been concreted in technical policy instruments. This finding aligns with research by Wulandari et al. (2025), who emphasized the importance of clear organizational structure and standard operating procedures for service efficiency, and Anetta Lesmana et al. (2023), who emphasized the influence of organizational communication and a collaborative work culture on hospital policy implementation. In capacity development, Anutapura Hospital in Palu implemented a parallel strategy, whereby human resource competency development was carried out simultaneously with the provision of infrastructure and equipment, and a persuasive approach with the BPJS (Social Security Agency) early on to ensure prompt service operation. Support from SOPs, a cancer registry, and multidisciplinary monitoring strengthened the quality control cycle, illustrating internal capability-building practices aligned with Duncan's strategic management theory, which prioritizes responding to external demands simultaneously. In contrast, Torabelo Hospital in Sigi implemented a "human resources first, equipment second" strategy, initially focusing on medical personnel training, RME integration, and service promotion. However, the absence of SOPs and a work plan made this strategy difficult to control and evaluate. This aligns with the findings of Fitriani Sarjito (2022), who stated that integrated cancer services require synergy between multidisciplinary human resources and infrastructure readiness, as well as Desika Santi et al. (2023), who emphasized healthcare worker competency as a key factor in improving service quality.

In terms of funding and partnerships, Anutapura Hospital in Palu utilized a combination of BLUD (Directorate General of Public Works), DAU (General Allocation Fund), and the Ministry of Health (MoH) funds to finance chemotherapy rooms, medical equipment, digital service integration, and human resource training. This approach aligns with research by Karisma et al. (2024), which shows that digital technology-based strategic management and funding diversification improve hospital financial efficiency, and Kevin Putra et al. (2023), which emphasizes the importance of innovation-based strategic management for effective governance. Digital technologies, including SIMRS (Sysm Hospital), RME (Educational Mechanism), telemedicine, and digital marketing, have been shown to improve service efficiency, reduce operational costs, and enhance patient satisfaction. Conversely, Torabelo Sigi Hospital still relies on the Regional Public Service Agency (BLUD) and Ministry of Health support for human resource training, while major investments such as increasing electricity capacity pose a constraint. This creates a gap between input readiness and operational processes, making it difficult for the hospital to enter the operational phase without an integrated funding strategy.

Overall, Anutapura Hospital in Palu successfully minimized the gap between readiness and operations with a parallel strategy, while Torabelo Sigi Hospital still faces a gap between planning and implementation. This aligns with Duncan's view that an effective strategy must align internal conditions with external dynamics and ensure integration across organizational components. Anutapura Hospital in Palu has initiated monitoring, although formal indicators have not yet been established, while Torabelo Hospital in Sigi does not yet have a structured evaluation system. This underscores the importance of performance indicator-based monitoring to maintain strategic sustainability, as noted by Purwadhi et al. (2024).

This summary shows that while both hospitals have policy frameworks, capacity development strategies, and funding plans, the levels of readiness and implementation differ significantly. Anutapura Hospital in Palu demonstrates a more mature and integrated approach to policy, human resources, facilities, and funding, enabling cancer services to operate quickly. Torabelo Hospital in Sigi still requires further synchronization between human resources, infrastructure, operational strategies, and funding to achieve tangible service effectiveness.

Strategy Implementation Plan at Anutapura Hospital, Palu, and Torabelo Hospital, Sigi, to Support Preparedness and Strategic Planning for the Priority Cancer Service Outreach Program

The strategy implementation plan established by hospital management to support the priority cancer service outreach program demonstrates a systematic and phased approach. At Anutapura Hospital, Palu, the strategy for meeting intermediate-level standards is implemented in parallel, encompassing human resources, infrastructure, medical equipment, and financing through the National Health Insurance (BPJS), ensuring internal readiness aligns with external demands, in accordance with Duncan's strategic management framework. Strengthening governance, complete operational documents, standard operating procedures (SOPs), and cross-unit coordination mechanisms ensure consistent implementation. Support for digitalization and a cancer registry strengthens data systems, service monitoring, and the continuity of clinical services. Furthermore, human resource capacity development, partnerships with service networks, and regular monitoring and evaluation demonstrate management's commitment to maintaining the sustainability and adaptability of the strategy. This confirms that implementation planning serves as a bridge between input readiness and actual service outputs, while minimizing the gap between administrative planning and operational practice.

At Torabelo Sigi Hospital, the implementation plan was developed contextually and realistically, reflecting local capacity, prioritizing human resource development before procuring equipment and initial coordination with the BPJS Kesehatan (Social Security Agency) to open services. The addition of an oncology clinic expanded access to cancer services, while the Ministry of Health's assignment mechanism and fellowship programs were utilized to strengthen human resources. Support for information digitalization, mentoring, and in-house training emphasized the focus on improving the capacity and competence of healthcare workers as the foundation of implementation. Thus, the strategy at Torabelo Sigi is not merely administrative but also builds operational readiness and sustainable quality of cancer services.

Conceptually, strategy implementation planning is part of the process dimension within the CIPP framework, connecting inputs and actual service outputs. Clarity of critical pathways, completeness of operational documents, funding, and data systems are critical factors for success. The strategy must align internal human resources, infrastructure, equipment, information systems, and funding with external demands, including regulations, BPJS Kesehatan credentials, and patient needs. Success is determined not only by the grand vision but also by the hospital's ability to manage operational steps adaptively. An adaptive and collaborative organizational culture also strengthens strategy implementation, while organization, SOPs, human resource and infrastructure synergy, and healthcare workforce competency form the foundation of service readiness. With thorough implementation planning, hospitals can ensure not only administrative readiness but also tangible clinical services for patients.

4. Conclusion

Based on research results, an evaluation of hospital readiness and strategic planning for implementing the priority cancer service program in Central Sulawesi Province revealed significant differences between Anutapura Hospital, Palu, and Torabelo Hospital, Sigi. The input evaluation indicated that Anutapura Hospital, Palu, was at the intermediate operational stage, while Torabelo Hospital, Sigi, remained at the basic stage. The process evaluation revealed that Anutapura Hospital, Palu, was more ready for implementation, although it still needed to refine its registry standards and performance indicators. Meanwhile, Torabelo Hospital, Sigi, required accelerated development of operational documents, infrastructure development, and technical assistance to enable the strategy to be translated into concrete services.

The product evaluation revealed that Anutapura Hospital, Palu, had already delivered operational services with a tangible clinical impact, while Torabelo Hospital, Sigi, was still in the preparation stage with program outputs yet to materialize. Strategy formulation at Anutapura Hospital, Palu, successfully minimized the gap between readiness and operation through a parallel strategy, while Torabelo Hospital, Sigi, still faced limitations in operational documents, infrastructure, and funding, preventing the strategy from fully supporting the acceleration of cancer service operations.

The strategy implementation plan reinforces these findings, with Anutapura Palu more prepared and operational, while Torabelo Sigi still requires acceleration in aspects of governance documents, infrastructure, and technical assistance. Overall, the success of the priority cancer service support program at both hospitals is largely determined by input readiness, process effectiveness, product outcomes, and adaptive strategy formulation and implementation. Strengthening these five dimensions is a crucial foundation for network hospitals in Central Sulawesi Province to provide effective, high-quality, and sustainable cancer services.

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