

# Quality Assurance Implementation Strategy with PDSA Approach at the Health Center in Situbondo District

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**Abstract:- Public health services are starting to be found in big cities to rural areas. One of them is the Public Health Center or Puskesmas in Bahasa. The improvement of the Public Health Center intends to raise public awareness in caring for their own health and the environment therefore be able to reach quality health services for the community. Quality assurance (QA) will be the main focus in this research. The purpose of this study was to analyze the QA implementation strategy with the PDSA (Plan, Do, Study, Action) approach at the Public Health Center known as Puskesmas Asembagus in Situbondo Regency. Qualitative research with a case study approach was carried out in this research. The source of information is quality team in the Puskesmas Asembagus consists of 6 people who will conduct interviews regarding the identification of management commitment, quality leadership analysis, quality organizational analysis and quality culture that supports the implementation of QA with the PDSA approach. The results showed that management's commitment in implementing QA experienced obstacles in the PDSA cycle. The comprehensive of the quality leadership document is known to be incomplete. Meanwhile, the implementation, monitoring and quality improvement documents are in the complete category. The organizational structure is in accordance with the Puskesmas' Governance Guidelines and the quality culture is in the good category.**

**Keywords:-** *Quality Assurance, Public Health Center, PDSA Approach.*

## I. INTRODUCTION

Quality assurance (QA) is defined as arrangements and activities intended to provide safety, maintenance and improve service quality[1]. Quality assurance is also one of the important components in a national regulation[2] because QA shows evidence of how quality is maintained in professional development activities as if it were a lifetime learning and a system with a legal framework [3]. In order to achieved the Quality Assurance system, strategic plans, quality monitoring and evaluation are needed which are summarized in the quality management system. The implementation of QA involves a different approach and needs regular development [4]. The commonly used approach in QA health services specifically the Donabedian triangle method which includes structure,

process, and outcome. In the Donabedian triangle, it is said that the outcome component depends on the structural and process [5]. In this situation, the existence of other health service facilities in the working area of the *Puskesmas* has been able to attract the attention of the service user community so that the alteration in looking for good services is clear. The quality management method in this condition is called the "Quality Assurance (QA)" method, in which the *Puskesmas* has the courage to state and guarantee that the services are of high quality.

The need for rapid and systematic change, especially during the pandemic, has led to the use of the PDSA cycle with 4 step models, namely plan (planning), do (implementation), study (study/observe/supervise), and action (improvement) that have received support, and widely used in improving the quality of health [6]. This method is a way to test implemented changes and direct the thinking process into several steps then evaluate the results, improve and retest [7]. PDSA is a model or method of constant quality improvement in solving quality problems [8]. The PDSA concept is a guideline for every manager for a constant quality improvement process therefore increasing to a better state and being carried out in all parts of the organization [7]. The PDSA process based on awareness of service quality, not only continuously but also in a systematically order, transpires in all parts and service mechanisms and in harmony on the way to increase service activities. PDSA is a systemic way to solve problems in order to improve service quality continuously [9].

This suitable with previous research conducted by Fauza & Kautsar [10] which states that the PDCA cycle is an effective intervention to do, so that a constant improvement can be obtained in an organization. Other research also shows that the PDSA cycle is a guideline for every manager for quality improvement process therefore improving to a better state and increasing teamwork in implementing the change process [11]. Mapping data by the Directorate of Quality and Accreditation of Health Services as of December 31, 2019, throughout Indonesia there were 10,134 Puskesmas and 9,135 (90.1%) Puskesmas have been accredited. In East Java Province, there are 968 Puskesmas and 963 Puskesmas (99%) accredited puskesmas [12]. Meanwhile, based on the basic data of the Situbondo District Health Office, there are 20 health centers throughout the Situbondo district, 17 accredited health centers and 3 unaccredited health centers because they

were only established in 2019. For the basic 2 (11.7%) graduation rate, 8 (47.1%) intermediate, 7 (41.2%) major. This figure shows that the dominance of the graduation rate at the intermediate level [13]. By observing that the Puskesmas Asembagus can maintain the status of a pilot health center, and ranks first in the Puskesmas Performance Assessment (PKP), as well as obtaining a primary level accreditation pass rate, the researcher wants to analyze the Quality Assurance implementation strategy with the PDSA approach at the Puskesmas Asembagus as a pilot health center in the Situbondo regency. How is the Quality Assurance implementation strategy with the PDSA approach at the Pilot Health Center in Situbondo Regency? Analyzing the Quality Assurance implementation strategy with the PDSA approach at the Pilot Health Center in Situbondo Regency.

## II. METHODS

The type of research used is a qualitative method with a case study approach. This type of research is often called naturalistic research, meaning that it is used to examine the condition of natural objects (as opposed to experiments) where the researcher is the key instrument, the data produced is descriptive and the data analysis is carried out inductively with more emphasis on meaning than generalization [14]. In this study, the approach was used to examine the implementation strategy of Quality Assurance with the PDSA approach at Puskesmas Asembagus as a pilot Public Health Center in Situbondo Regency.

The PDSA cycle is like a machine that keeps moving to achieve the goal of quality improvement and improvement by trying to achieve quality indicators gradually and continuously. According to Nasution [15] and Guidelines for Health Center Quality Management [16] the use of the PDSA cycle in an effort to improve quality, namely (1) Planning based on the selection of policy priorities, expected results and analysis of the current situation. (2) Do (implementation) is the implementation of the solution plan to the problem following the implementation list and verification of the permanent corrective action plan for quality improvement. After making a repair work plan, the quality team carries out a pilot project to be implemented in the puskesmas, and this trial is carried out by determining the form of repair, estimated costs, implementation time, and the name of the person in charge. In the implementation step of this permanent corrective action plan, commitment from management and employees as well as total participation is needed to jointly eliminate the root causes of the quality problems that have been identified. Quality data recording must also be carried out during this implementation phase and must identify the causes of deviations in the implementation phase of this permanent corrective action plan. (3) *Study* (study/observe/supervise) namely comparing the results achieved with the plans (targets) that have been made, it is necessary to carry out studies and evaluations after the implementation of the quality improvement program during the program period, based on the data collected during the implementation phase of the quality

improvement program in order to find out whether the types of problems that exist have disappeared or reduced, which shows that the quality improvement program is really effective and efficient. (4) Action (improvement) is intended to prevent the recurrence of the same problem and record other remaining problems from the planning stage that have not been solved to be used in the next planning. Satisfactory results of permanent corrective action or problem solution through quality improvement projects should be standardized, and then carry out continuous improvement on other types of problems following the PDSA concept. Standardization is meant to prevent the same problem from happening again [8].

Implementation of Quality Assurance with PDSA Approach according to Widodo [17] Quality Assurance is an important part in the development of the quality of an organization towards a wider and higher level (total quality). And in the implementation of the quality system, there are 3 (three) Quality Assurance components, namely (1) Standardization is an effort to improve quality by applying standards, but there is no external party to test or assess. (2) Accreditation is an acknowledgment from external parties, in this case the FKTP accreditation commission, whether health service facilities have met service quality standards. (3) *Continuous Quality Improvement (CQI)* is the next step in the Quality Assurance (QA) cycle, which is an institutional effort to maintain and or improve quality through various activities according to the standards, criteria and indicators that have been previously set in a quality management system [18]. In an effort to ensure that the quality improvement at the Puskesmas is running continuously (CQI) in accordance with the PDSA quality rules (Plan, Do, Study, Action), the key implementations are: (1) Internal audit implementation. (2) Implementation of the quality team which includes the implementation of Infection Prevention and Control (PPI), Patient Safety (KP) implementation, and Occupational Health and Safety (K3) implementation. (3) Implementation of a quality review meeting/meeting (RTM) by the person in charge of quality that produces a quality improvement and patient safety program plan document or a quality Plan of Action (POA) which is the initial part of the implementation of quality rules in an effort to continuously improve quality, namely planning ( plans) [17].

## III. RESULTS AND DISCUSSION

Qualitative research conducted with a case study approach. There were 6 informants as a quality team at the Puskesmas Asembagus, Situbondo Regency. In this analysis, 6 informants were divided into two categories, namely Key Informants (IK) and Main Informants (IU). Each category consists of 3 informants.

In Table 1 there are 3 Key Informants (IK) who are people who understand the problem and have information about the problem. The three informants have different ages, educational backgrounds, positions in the team and years of service.

TABLE I. CHARACTERISTICS OF KEY INFORMANTS

No	Informant	Age (years)	Gender	Last education	Position in Team	Length of Work in-	
						Public health center	Quality Team
1	IK 1	46	P	S1	Ka. Public health center	5 years	5 years
2	IK 2	42	P	D3	PJ. Quality	18 years	3 years
3	IK 3	39	P	S1	Head of TU	3.5 years	3 years

TABLE II. CHARACTERISTICS OF MAIN INFORMANTS

No	Informant	Age (years)	Gender	Last education	Position in Team	Length of Work in-	
						Public health center	Quality Team
1	IU 1	50	P	D4	PPI Team Leader	3 years	1 year
2	IU 2	39	P	S1	KP & K3 Team Leader	6 years	5 years
3	IU 3	39	P	D3	Head of Internal Audit Team	13 years old	5 years

In Table 2 there are 3 other informants who are Main Informants (IU) directly involved in the field being studied. Table 2 also has differences in age range, last education, position in the team and years of service. The main informants consisted of the coordinator of the Infection Prevention and Control (PPI) team, the coordinator of the Patient Safety (KP) and Occupational Health (K3) team at the Puskesmas, and the coordinator of the Internal Audit.

#### A. Identifying Management Commitment in QA Implementation with PDSA Approach

In recognizing about management's commitment in implementing QA on the PDSA approach, the researchers conducted structured interviews which resulted in several conclusions from interviews with the six informants. There are several supporting and inhibiting factors found in the interview process regarding management commitment in the implications of QA on the PDSA approach.

In the planning factor (Plan), these obstacles refer to the absence of the quality RPK copy (Activity Implementation Plan) which is described in the monthly RPK, the absence of an absolute target number and only shown in percentage form, and there are no patient safety indicators and PPI. Meanwhile, the aids obtained in the planning factor is from the Head of the Health Center who facilitates and allocates resources for quality programs, determines the main quality indicators, as well as the existence of annual performance targets in the form of work agreements. The following is an excerpt from the contents of interviews with informants regarding the obstacles and aids factors that occur in planning (Plan)

*IK2 interview excerpt (2:39-41) "Yes, I don't hold my own quality RPK. I just found out that I have to hold it and I have to break it down into monthly RPK, so I've only attached to the quality work plan" (05 January 2022 at 08.15-09.20 WIB).*

In the other three factors, namely implementation (Do), observe (Study), and improvement (Action), there are also obstacles and aids for management commitment at the Health Center. Some of the obstacles in the implementation factors such as lack of detail regarding the types and mechanisms in the direction of activities, communication, coordination to the delivery of opinions, while the aids is monitoring carried out to ensure activities are carried out according to plan. In the Study factor, the obstacles experienced were in the form of discrepancies from the job descriptions and the absence of a survey of employees related to quality culture and its follow-up. Meanwhile, the aid factors obtained in the existence of review meetings at least twice a year to provide feedback, complaints as well as internal audits and also an evaluation of the quality team's performance coverage every quarter. The following is the statement of the informant regarding the obstacles to the Study factor:

*Excerpt from interview with IK2 (4:147-151) "Yes, ma'am, so far, surveys have been conducted only on puskesmas or the community users, such as community satisfaction surveys and surveys related to patient satisfaction, especially for inpatient users at puskesmas, but for employees such as surveys or pick-and-drop tests, never." (05 January 2022 at 08.15-09.20 WIB).*

In the improvement factor or Action, the obstacles faced were the lack of guidelines that became guidelines in efforts to improve and improve the quality of the Puskesmas and the absence of feedback from the local Health Office since one year ago. Meanwhile, the supporting factors for management's commitment are the determination of competency requirements in each field, the existence of an annual competency analysis and also the allocation of funds for the person in charge according to the field.

TABLE III. RECAP OF COMPLETENESS OF ASEMBAGUS HEALTH CENTER QUALITY DOCUMENTS 2021

Quality Document	Quality Planning Document					Amount	
	PJ Quality & TMM	PPI	KP	K3	Internal Audit	Complete	Incomplete
Planning (Plan)	Less complete	Less complete	Less complete	Less complete	Less complete	0	5
Execution (do)	Complete	Complete	Complete	Less complete	Complete	4	1
Supervision (Study)	Complete	Complete	Complete	Less complete	Complete	4	1
Repair (Action)	Complete	Lenghood	Complete	Less complete	Complete	4	1

TABLE IV. RECAP OF IDENTIFICATION OF CONFORMITY WITH JOB DESCRIPTION OF THE ASEMBAGUS HEALTH CENTER QUALITY TEAM

Job description	Health Center Quality Team					Total	%
	PJ Quality & TMM	PPI	KP	K3	Internal Audit		
There is not any						0	0
Yes, Not Appropriate	1	1			1	3	60%
Yes, Appropriate			1	1		2	40%

**B. Identifying Leadership in QA Implementation with PDSA Approach**

Based on Table 3 regarding the recap of the results of the completeness of quality documents regarding leadership in the implementation of QA with the PDSA approach, it is known that the overall planning document (Plan) is in the incomplete category with a hundred percentage. Meanwhile, the documents for implementation (Do), supervision (Study) and improvement (Action) are in the 80% complete and 20% incomplete categories.

**C. Identifying Organizing in QA Implementation with PDSA Approach**

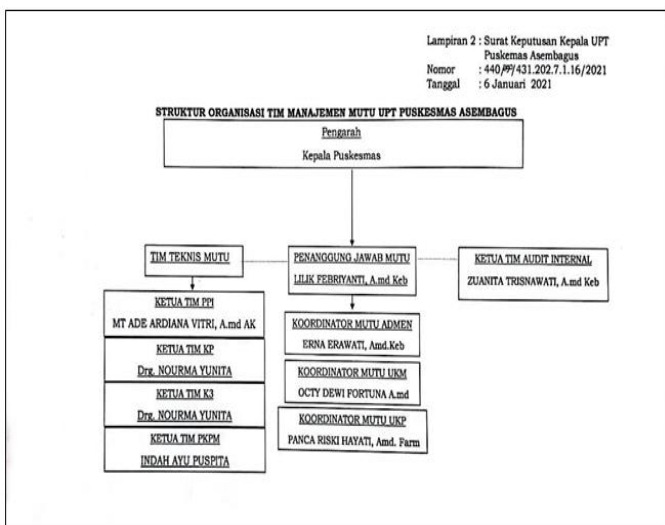


Fig 1. Asembagus Health Center Quality Organizing Source: Asembagus Health Center[19]

Figure 1 describes the organizational structure of the quality management team at the Health Center based on the Decree of the Head of the Puskesmas Asembagus UPT No.

440/090/431.202.7.1.6/2021 concerning the Change of Responsible Quality Management and Quality Management

Team which has a description of the duties, authorities and responsibilities of each, respectively.

Table 4 describes a recap of the identification of the suitability of job descriptions from the Puskesmas quality team, of the five quality teams identified, 60% of the teams were in the category of existing job descriptions but not in accordance with the guidelines. Meanwhile, 40% of the team already have a job description and are in accordance with the guidelines for the quality management of the Puskesmas.

**D. Identifying Quality Culture in QA Implementation with PDSA Approach**

The quality culture in the Health Center is identified through 12 characteristics of the quality cultured work environment which can be seen in table 5. From the table it can be seen that 10 characteristics (83.3%) are contained in the quality culture applied at the Health Center. While the other 2 characteristics (16.7%) were not applied in the quality culture.

TABLE V. IDENTIFICATION OF ASEMBAGUS HEALTH CENTER QUALITY CULTURE 2021

No	Statement	Answer	
		Yes	Not
1	Head of Puskesmas, person in charge and coordinator of quality activities provide direction in achieving quality indicators	v	
2	Management provides opportunities for all staff to express opinions, provide positive feedback on all inputs, another form is the reporting mechanism, and clarity of programs and responsibilities.	v	



No	Statement	Answer	
		Yes	Not
3	Always put emphasis on teamwork	v	
4	There is a clear division of duties and responsibilities at all levels of responsibility and implementer.	v	
5	There are efforts to increase the capability of human resources through training.	v	
6	There is active feedback from monitoring results, internal audits as well as RTM	v	
7	There is socialization and training to improve quality and patient safety for employees, service users and the community		v
8	The Puskesmas conducts training needs analysis and develops employee training and development programs.	v	
9	The Puskesmas conducts a survey to officers to measure the quality and values of the expected quality		v
10	Puskesmas provide feedback in the form of appreciation to employees and provide opportunities for growth	v	
11	There are performance indicators for all employees	v	
12	Puskesmas prepare quality program planning	v	

Improving the quality of health services is a strategic plan in the health sector. The implementation of a standard process and a follow-up system, when combined, can be referred as a program of quality assurance [20]. Service quality is an important factor that can form loyalty to the Puskesmas, therefore the quality assurance of health services must be continuously evaluated and refined as a useful tool for health service managers and planners [21]. An evaluation also needs to be designed to answer questions about the effects of implementing each academic and non-academic QA [22]. In the quality management manual [16] it requires a quality management, leadership and organizational commitment as well as a quality culture for quality assurance in Puskesmas. This is in line with several aspects of QA which include equipment selection, initial device verification, follow-up verification, continuous quality assurance including quality control and quality management [23]. One of the approach to continue quality improvement is PDSA as a method used in the research [24]. Where PDSA helps us to focus on building basic knowledge such as learning what is needed to get improvement [25]. From the results of this study, most of the management commitments have covered the elements of a commitment, namely responsibility, consequences, honesty, and consistency [26]. Management commitment is one of the main elements in a safety and health management system [27]. Therefore, management commitment is one of the

implementations of Quality Assurance in this study which is reflected in the PDSA cycle.

Meanwhile, for the implementation of QA on quality leadership at the pilot health center, it is known that the planning documents are in the incomplete category as a whole, in contrast to the implementation, monitoring and improvement documents, which are mostly in the complete category. Although there is a good quality seen from the planning or design made [15]. A multidisciplinary approach can be an effective method of introducing quality improvement programmes [28]. The quality of leadership itself can be seen in four roles, namely in a task, motivating, socially and leadership spirit [29]. Leadership development itself is often assumed to be the responsibility of the organization rather than the responsibility of each individual [30]. Awareness in a leadership is expected to guide and become a model for employees to increase situational awareness, which is a key in safety and quality at work and quality in life [31]. There is a need for adjustments and laying down of standard specifications and procedures that require corrective actions for various errors, so that the situation can be corrected at a certain time on an ongoing and regular basis [21]. This has also been highlighted in studies that illustrate that effective leadership needs to be contextualized [32].

The results of the analysis of the quality organization in the implementation of QA show that there is a discrepancy with the guidebook for quality management of the health center but is in line with the Regulation of the Minister of Health (PMK) Number 46 of 2015. In fact, the quality of services is interrelated, depending on the quality of medical and non-media services provided [21]. Meanwhile, the structure of the Health Center quality team is mostly in accordance with the quality management guidelines. In contrast to the majority of quality team job descriptions that do not comply with existing guidelines. This result contradicts the research of Wicaksono [21] which states that it requires consistency from service providers so that they are always responsible for the tasks given to improve service quality, where the job descriptions given should be in accordance with existing positions and guidelines in order to improve service quality. The results of the identification of quality culture at the Health Center are in the good category because 10 of the 12 characteristics have been met, in line with research on the relationship between quality culture and commitment, where the higher the existing quality culture, the commitment will increase [33]. In order for a quality culture to apply, alignment between managers and employees is needed which raises perceptions and expectations in a teamwork [34]. This means that increasing commitment can be done by developing an optimal quality culture [33].

#### IV. CONCLUSIONS AND RECOMENDATIONS

The conclusion that can be drawn from this research is the implementation strategy of Quality Assurance (QA) with the PDSA approach which is applied more emphasizing on the process of monitoring or studying the results (study) of the implementation of activities that have been planned (plan). This is in line with continuous quality improvement efforts

with the PDSA cycle approach, namely planning (plan), implementation (do), monitoring or studying results (study), and improvement (action). The completeness of the planning documents on quality leadership at the Puskesmas Asempagus is known to be in the incomplete category, while the implementation, supervision, and quality improvement documents are in the complete category. The structure of the Puskesmas Asempagus quality team is in accordance with the Puskesmas Quality Governance Guidelines, so it can be categorized accordingly.

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