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Piloting Non-Payment Interventions in Tuberculosis Strategic Health Purchasing: Early Experience from Indonesia

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ABSTRACT

Although there has been a 19% decline in Tuberculosis (TB) mortality from 2007 to 2017, TB remains a major health challenge in Indonesia. In 2021, the country issued a Presidential Decree No. 67 to provide guidance on the National Health Insurance (JKN) utilization of control. In 2022, Ministry of Health Decree No. 1936 mandating primary care facilities to comprehensively treat uncomplicated TB case . However, the existing payment structure of JKN does not encourage primary-level TB service delivery. O'Connell and colleagues conducted a study in 2022 that revealed that a significant proportion (81%) of uncomplicated TB patients covered by JKN were unnecessarily referred to hospitals, resulting in suboptimal treatment outcomes and increased healthcare costs.

To address these challenges, a TB strategic health purchasing (SHP) pilot program was proposed in 2019. Its objective is to incentivize primary health facilities to deliver quality TB services for individuals with drug-susceptible TB through a combination of nonpayment and payment interventions. Two districts, Medan and Denpasar, were selected to implement these interventions, and the pilot began in 2021. The non-payment components, including health facility certifications and modifications to the JKN contracting process, were successfully implemented in Medan and Denpasar districts from 2021 to 2022. Regulations governing the JKN payment mechanism require substantial modifications before implementing the payment components.

Several learnings emerged through implementation and this report summarizes the learnings as a guide for government stakeholders and partners for scale up to other districts in 2023. Amongst these, is the significant level of advocacy and support from high-level government stakeholders, both at the national and sub-national levels, required to reform the regulatory environment to pave the way for implementing the complete interventions. For example, successful implementation of the non-payment components at the sub-national level relied heavily on improved coordination and engagement between the District Health Office (DHO), the BPJSK Branch Office and the health facility associations. This coordination was responsible for the increased involvement of primary care facilities in the DPPM networks.

BIMTEK technical trainings and facility TB certification, led by the DHO, are critical inputs into the JKN credentialing process, beginning with facility self-assessments to determine the capacity to provide TB care and the level of training required to raise the capacity of health workers. This certification process has demonstrated positive outcomes in terms of increased engagement, commitment, and adherence to guidelines among private primary health facilities providing TB services. 94% of JKN-empaneled private primary health facilities in Medan and 87% in Denpasar obtained certification, demonstrating increased commitment and capacity to deliver comprehensive TB care from diagnosis to treatment to reporting.

The report also outlines other recommendations for policymakers, including adapting the primary health center accreditation scheme as a baseline to continue the health facility readiness certification process, as well as suggestions related to the ongoing TB payment reforms.

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Abbreviations and Acronyms	
BIMTEK	Bimbingan Teknis (technical training)
BOK	Bantuan Operasional Kesehatan (operational health funds)
BPJSK	Badan Penyelenggara Jaminan Sosial Kesehatan (National Health Insurance Agency)
DHO	District health office
DPPM	District public-private mix
DS-TB	drug susceptible tuberculosis
GOI	Government of Indonesia
JKN	Jaminan Kesehatan National (National Health Insurance)
MOH	Ministry of Health (Kementerian Kesehatan)
NTP	National Tuberculosis Program
OJT	On-the-job training
PHC	primary health center
Puskesmas	Pusat Kesehatan Masyarakat (public primary health centers)
R4D	Results for Development
SHP	strategic health purchasing
SITB	Sistem Informasi Tuberkulosis (Tuberculosis Information System)
TB	tuberculosis
TBPS	Tuberculosis Private Sector Activity
TCM	Tes Cepat Molekuler (Rapid Molecular Test)
TWG	Technical working group
USAID	United States Agency for International Development
WIFI TB	Wajib Notifikasi TB (reporting platform for private facilities)

Introduction

Tuberculosis in Indonesia

Indonesia has the second-highest tuberculosis (TB) burden in the world, with 969,000 infections per year and a 16% case fatality ratio . The country also faces a number of health system challenges that stymie efforts to address this high TB burden. It is estimated that 18% of TB cases in Indonesia are missed or undiagnosed, 29% of diagnosed cases are never reported, and 55% of people who test positive are never notified . Difficulty with containing, treating, and monitoring TB contributes to high mortality, drug resistance, and continued disease transmission.

According to the WHO (2021), more than 90% of TB cases in Indonesia are drug-susceptiblei. Drug Susceptible TB (DS-TB) treatment without comorbidities and complications should be able to be delivered at the primary health care (PHC) levelii. However, a 2022 study by O'Connell, et. al, found that many PHC providers refer suspected TB patients elsewhere for care, particularly to the secondary (hospital) level. This creates undue costs to both patients and Indonesia's national health insurance program, Jaminan Kesehatan Nasional (JKN), which is mandated to finance individual health services for TB under Presidential Regulation No. 67 of 2021 regarding Tuberculosis Controli. Moreover, The Joint External Meeting forum (2017) identified that TB medication monitoring is poor in both public and private hospitals, and treatment outcomes in hospitals are consistently worse compared to outcomes at the primary level in Indonesia (WHO, 2017) , .

A key contributor to these service delivery trends is the current JKN purchasing arrangements. JKN pays healthcare providers to deliver services using capitation in PHC facilities and Indonesian case-based groups (INA-CBGs) in secondary-level facilities. These arrangements create adverse incentives for delivery of TB services and may partially explain the dominance of hospital-based treatment. Wells (2019) found that the implementation of capitation payment for TB services in PHC causes excessive referrals since there is no incentive mechanism for the long-term treatment of TB patients in PHC. JKN purchasing mechanisms at the primary level also lack specific measures that link payments with TB service quality . The contracts between the National Health Insurance Agency (BPJSK) and health facilities do not specify adherence to Ministry of Health (MOH) standard treatment guidelines for TB.

Strategic Health Purchasing of Tuberculosis Services under JKN

Strategic health purchasing (SHP) means making deliberate decisions about how to allocate public funds—towards selected services and products, and selected healthcare providers, using appropriate payment mechanisms—based on priorities, objectives, and information. SHP ties payments for health services to their quality and to population health goals. In this way, SHP supports more sustainable and effective health financing that can also support better health outcomes. Given the persistent challenges in managing and controlling TB in Indonesia that are linked to JKN's purchasing arrangements, SHP offers promising approach to meet the president's vision for TB elimination by 2030.

The tuberculosis strategic health purchasing pilot program (TB SHP) recommends an approach that modifies JKN financing patterns and payment systems, as outlined in Presidential Regulation No. 82 of 2018 on Health Insurance . In addition to adjusting the payment mechanism, the SHP approach modifies the benefits package and contracting arrangements between the Badan Penyelenggara Jaminan Sosial - Kesehatan (BPJSK - Indonesia's national health insurance agency) and health care facilities, and strengthens monitoring for quality TB service delivery.

A technical working group (TWG) consisting of representatives from the MOH, BPJSK, development partners (including the USAID-funded Tuberculosis Private Sector Activity [TBPS] and the Health Financing Activity [HFA]) was set up in 2019 to address financing issues related to TB services. After thorough evaluation of the challenges, health outcomes, and associated policies governing the national TB program, the TWG drafted

an approach to strengthen JKN's purchasing arrangements and improve the quality of services for TB, which would be tested and refined through a TB SHP pilot. This approach was summarized in a TB SHP pilot implementation manual, which would guide the project and the evaluation of its impact, and support the identification of unintended risks associated with the purchasing scheme. District-level preparation for the pilots began in 2020, and pilot implementation began in 2021. In agreement with the MOH's Director for Communicable Disease Prevention and Control, two pilot intervention areas were selected: Kota Medan (Medan City) in North Sumatra province and Kota Denpasar (Denpasar City) in Bali province.

Theory of Change of the TB SHP Pilot and Critical Assumptions

The TB SHP pilot theorizes that TB outcomes and the financial sustainability of the TB program under JKN can be improved by implementing four main SHP approaches: 1) clearly defining the TB services to be purchased under JKN, 2) leveraging JKN contracts with healthcare facilities as quality accountability tools, 3) creating financial incentives for delivering most TB care at the PHC level and promoting higher quality of that care, and 4) strengthened monitoring of TB service delivery.

Defining the TB Services to be Purchased under JKN

The TB SHP pilot more clearly defines the TB health services to be provided at the PHC level and the quality standards that must be met by providers in order to be paid for services. Providers participating in JKN must follow MOH standard TB treatment guidelines (updated in 2019), which include quality of care standards, guidelines for referrals, and policies that incentivize treatment at lower levels of care. These updated guidelines are expected to result in higher quality of care at the PHC level.

Leveraging JKN Contracts as Quality Accountability Tools

The TB SHP model incorporates TB quality standards and requirements into the BPJSK facility credentialing and contracting process. During the contracting process, the TB SHP approach requires facilities to conduct self-assessments of their readiness to provide TB services; these are facilitated by district health offices (DHOs). Facilities complete two self-assessments, with technical training (BIMTEK) provided in between them to increase service and administrative capacity. Successful completion of the assessments and training result in the issuance of a certificate of TB quality, which is then a criterion in the JKN credentialing process. These approaches are expected to result in stronger adherence to the new quality standards and TB treatment guidelines, ensuring that private facilities prepared to provide TB services can do so and enhancing the consistency of service quality across facilities.

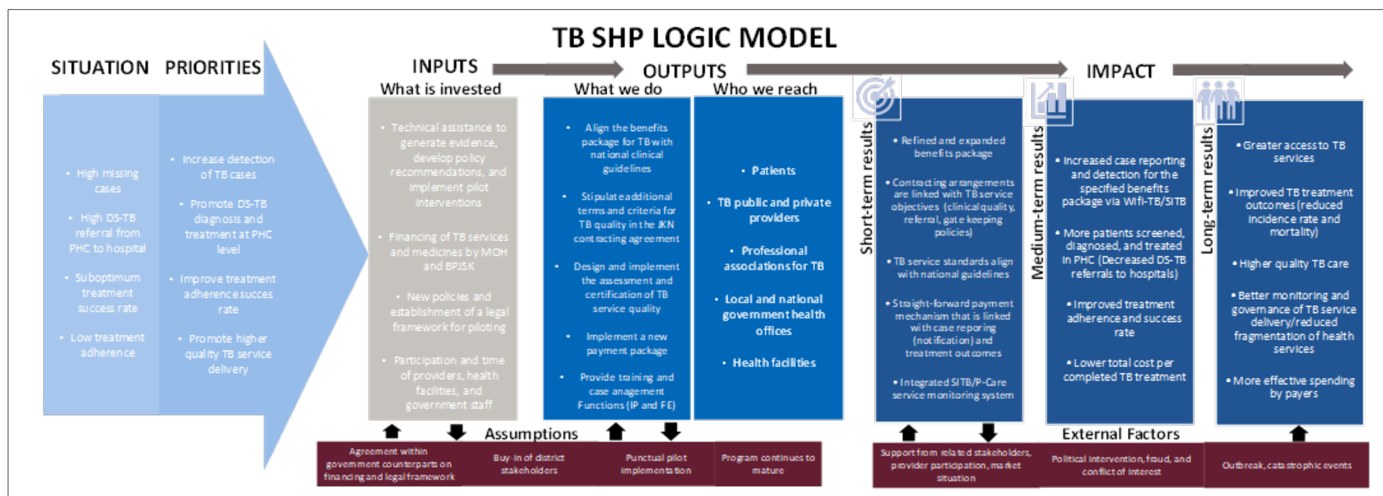
Creating Financial Incentives for Higher Quality Care at the PHC Level

The TB SHP model increases financial incentives for PHC providers to encourage them to screen, diagnose, and treat more TB patients. The model recommends an updated payment mechanism with higher rates, new service fees for diagnosis, and episode-based payments for treatment. Payments for treatment are made in two installments; at the end of the initial 2-month intensive phase, conditional on case notification to National Tuberculosis Program's (NTP) Tuberculosis information system (System Sistem Informasi Tuberkulosis - SITB), and one at the end of treatment completion, conditional on reporting treatment results. The updated payment mechanism is expected to result in improved rates of TB case detection and notification, incentivize treatment of non-complicated TB patients in PHC, and improve health outcomes.

Strengthened Monitoring of TB Service Delivery

The TB SHP model recommends integrating JKN's and NTP's information systems to better monitor service delivery and claims. While JKN's health information system, P-Care, is used to submit claims to BPJSK and collect health information, SITB is the primary platform for reporting cases of TB. The integration of these platforms would allow for a streamlined claims reimbursement process since TB case reporting is required for payment under this model and must be verified prior to payment disbursement. The TB SHP model also improves TB case management by utilizing TB technical officers (TO) to coordinate TB care at the service level.

The SHP team anticipates that these four changes in purchasing arrangements will impact the quantity and quality of TB services provided, leading to changes in provider behavior regarding case notification and referral. The combination of training, supervision of service delivery, and payment arrangements that are tied to performance will motivate providers to improve the quality of care they provide. The increased revenue from the new payment methods is expected to encourage more private primary care providers to participate in TB service delivery, thereby increasing the quantity of services offered. Ultimately, the improvement in both quantity and quality of TB care and services is expected to result in better health outcomes, as evidenced by a decrease in TB cases.



TB, drug susceptible tuberculosis; BPJSK, Badan Penyelenggara Jaminan Sosial Kesehatan; JKN, Jaminan Kesehatan Nasional; MOH, Ministry of Health; TB, tuberculosis.

This theory of change rests on crucial assumptions, as detailed in Table 1 below.

Table 1: Critical Assumptions about the Pilot Implementation of TB SHP Interventions.

Enabling Factors/Critical Assumptions	Progress during Preparation and Implementation	Impacts on Purchasing Interventions*
BPJSK will aid in the testing of the modified JKN contractual process and payment procedures in two designated districts through the development of a formal agreement with the MOH.	The formal agreement on the SHP pilot was achieved at the end of 2021. The BPJSK implementing unit (branch office) and MOH implementing unit (district health office) agreed to modify the JKN credentialing process by adding TB readiness certification as one of the assessment criteria for credentialing. However, there was no agreement on the JKN payment modifications prior to the end of the USAID TB Private Sector activity timeline.	Modifications to JKN credentialing were successfully implemented, but modifications to JKN payment procedures were not implemented prior to project end. Quality of service indicators are linked to the nonpayment purchasing components (they are criteria in the JKN credentialing process).
Both the MOH and BPJSK will concur on increasing reimbursement rates for TB services, despite the ongoing JKN deficit.	No agreement was reached on increasing reimbursement rates for TB services.	The increased rates for TB services were not pilot-tested.
Funding for incentives and crucial pilot components, such as case manager functions, will be obtained from government budgets.	Discussion about resource mobilization for funding TB service incentives was ongoing as of the writing of this report.	Funding for case manager functions (technical officers, intermediary partners, field executives) were covered by donors during the pilot implementation.
Reimbursement for TB diagnostic and treatment services will remain a part of the JKN benefits package.	Presidential Regulation No. 67 (2021) emphasized that individual health services for TB should be included in the JKN benefits package.i	The proposed reimbursement methods for TB diagnostic and treatment services were incorporated into a manual for future reforms to payments for TB services, which will be handed over to the government of Indonesia.

Abbreviations: BPJS, Badan Penyelenggara Jaminan Sosial; JKN, Jaminan Kesehatan Nasional; MOH, Ministry of Health; SHP, strategic health purchasing; TB, tuberculosis; USAID, United States Agency for International Development.
* This information was last updated in June 2023.

Progress In Implementation of the TB SHP Pilot
The USAID-funded TBPS Activity (2019-2024) and the Health Financing Activity (2018-2024) collaborated with the Government of Indonesia to support implementation of the TB SHP pilots, under the leadership of the TWG. The sections below detail progress to date on this implementation, including both nonpayment and payment components, and highlight specific progress in the two pilot districts.

Overall Progress in Implementing Nonpayment Components of the TB SHP Pilot
The TB SHP model aims to better incentivize PHC facilities to provide quality TB services for people with TB through nonpayment and payment interventions. Nonpayment components, including adjustments to the contracting and credentialing process, were successfully implemented in 2021-2022. TB readiness assessments, BIMTEK training, and dissemination of TB readiness certificate were carried out in Medan and Denpasar with a near perfect completion rate among the PHC facilities in these areas. The TB readi-

ness certificate was added as a criterion in the JKN credentialing process in both districts.

The assessment and certification process required active engagement from all primary facilities in the pilot areas, both public and private. To ensure this, designated TBPS project staff in the intervention areas organized tripartite meetings between DHOs, BPJSK branch offices, and the professional association for PHC facilities to strategize about approaches to comprehensively engage and work with facilities. The changes to the JKN credentialing process required significant support and collaboration from these stakeholders, especially DHOs, which facilitated the self-assessment process.

Steps in the Credentialing and Contracting Process in Detail were:

1. Health facilities that met credentialing legal requirements (as written in Permenkes 71/2013, Article 6, 7 and Permenkes 99/2015) conducted an independent self-assessment of their readiness in providing TB services.
2. Health facilities completed technical training (BIMTEK) provided by the District Health Office.
3. Health facilities conducted a second independent self-assessment and chose service options and their TB "District Public Private Mix" (DPPM) level of commitment (see description below).
4. Health facilities that were successful in the BIMTEK and second independent assessment received TB certification from the District Health Office. Then, the BPJSK branch office provided information about modifications to the JKN credentialing process using TB certificate as an additional criterion.
5. BPJSK contracting criteria for healthcare facilities include both legal and technical requirements. The legal requirements are mandatory and similar for all facilities and also do not specify TB criteria. The TB technical criteria encompass human resources, infrastructure, service coverage, and dedication to providing a particular level of TB services (e.g., the DPPM commitment). They aim to guarantee service quality via the contract between healthcare facilities and BPJSK.
6. 6. DPPM is an initiative enacted by the MOH to involve all health providers, public and private, in the TB control program at the district level. DPPM requires every TB healthcare provider to participate in a network so that all TB patients can be detected and treated according to service quality standards, and so that all TB cases are recorded in SITB. There are 4 TB service "options" or levels in the DPPM model:

- **Option 1:** Find patients with suspected TB and refer them directly to another facility for diagnosis and treatment; record the information on the Wajib Notifikasi TB system (a reporting platform for private facilities known by the shorthand WIFI TB).
- **Option 2:** Find patients with suspected TB; make a diagnosis or refer them for a diagnostic examination to the nearest referral health center, lab, or other health facility with the capacity to do rapid molecular testing (TCM); record and report the results on the SITB or WIFI TB platform.
- **Option 3:** Find patients with suspected TB; make a diagnosis or refer them for diagnostic examination to the nearest referral health center, lab, or other health facility with the capacity to do rapid molecular testing; provide clinical consultation and initiate treatment; and record and report other than using SITB or WIFI TB such as manual case reporting.
- **Option 4:** Find patients with suspected TB; make a diagnosis or refer them for diagnostic examination to the nearest referral health center, lab, or other health facility with the capacity to do rapid molecular testing; provide clinical consultation; provide medication and monitor the progress of treatment until completion; record and report the results on the SITB or WIFI TB platform.

Health facilities are encouraged to select and provide the highest level (option 4) of TB services, but this hinges on facilities' service provision capacities and access to computers to set up their own SITB accounts. For facilities that cannot commit to level 4 due to capacity constraints, other options can be selected for an initial commitment including option 3 for facilities who already provide comprehensive treatment but not reporting through SITB or WIFI TB or option 2 for facilities who establish diagnosis and record it in the SITB or WIFI TB. Gradually, the commitment options of health facilities should increase over time. All health facilities must record and report all patients with suspected or confirmed TB to the TB information system. This is typically done through SITB, but the WIFI TB platform is available as an option for private general physicians with a commitment of up to level 1 and with limited human resources and infrastructure.

Table 2 summarizes the new credentialing variables included in the TB readiness certificate that BPJSK now includes as part of its contracts with credentialed health facilities in the pilot areas.

Table 2: Credentialing Variables and Criteria for TB Quality Assurance under the TB SHP Pilots

Credentialing variable for TB	New criteria/indicators
Human resources and quality of service	• Health facilities have a person responsible for TB care. • TB health workers have attended training, webinars, workshops, or seminars on TB Diagnosis and Management in the last two years. • TB health workers have attended on-the-job training (OJT). • TB health workers have attended a TB Diagnosis and Treatment Management Training.
Systems and procedures	• Health facilities have equipment for recording and reporting as well as access to TB surveillance systems (SITB / WIFI TB).

Facilities and infrastructure	• Health facilities have liquid and solid waste management facilities (medical and non-medical waste) and temporary waste storage. • Health facilities have access to clean water and sanitation. • Health facilities have sufficient electrical power. • Health facilities complete the health protocol for TB (TEMPO / FAST) activities (available as an annex to the TB Service standard operating procedures). • Health facilities provide personal protective equipment. • Health facilities have rooms with ventilation and air circulation in accordance with national guidelines (can be helped by adjusting the direction of the fan, having a window / exhaust fan, maintaining distance between the physician's desk and the patient's desk). • Health facilities have TB health promotion media. • Health facilities have TB diagnosis tools or networks to make a TB diagnosis and initiate treatment.
Scope of service	• Health facilities provide education and consultations for TB cases. • Health facilities commit to a DPPM service option.

Overall Progress in Implementing Payment Components of the TB SHP Pilot

The payment components of the proposed TB SHP pilot, including modifications to JKN payment mechanisms, have not yet been implemented as of June 2023. This is due to several challenges related to establishing a regulatory framework and operationalizing these changes.

A regulatory framework for the TB SHP payment components was not established due to limited prioritization and consensus on the recommended changes. Despite recent regulations (such as Presidential Regulation No. 67 (2021) on TB Elimination) that encourage the testing of innovative approaches for TB care, a challenging regulatory environment for making health financing changes persists. There has been inertia among decision-makers at BPJSK to implement such policy changes, due in part to fear of financial audits. Pilot-testing additional incentives for TB services would require an increase in both funding and oversight, which BPJSK has been wary of committing to. There also is ongoing disagreement between the MOH and BPJSK about their division of responsibility for financing "individual" (clinic-based) and "public health" TB services, which has prevented them from coming to an agreement on the financial incentives.

Implementation of the TB SHP payment components was also hindered by operational challenges such as the integration of JKN's and NTP's information systems. Integration would support a much more streamlined process for processing claims, including verifying that the required reporting and notification have been carried out. However, integration of these systems has been challenging due to competing priorities at BPJSK and concerns about data confidentiality.

Progress in Medan

Stakeholders in the pilot area of Medan City started implementing elements of the TB SHP model in early 2021. The DHO in Medan began implementing quality enhancements, such as supporting TB readiness assessments and providing BIMTEK. The BPJSK branch office modified the JKN recredentialing process to include TB quality criteria. The TBPS project team, along with the DHO in Medan, facilitated three rounds of TB certificate dissemination to PHC facilities that had successfully completed readiness assessments and received technical training during 2021 and 2022.

Table 3: PHCs That Received TB Readiness Certificates during the TB SHP Pilot, Medan, January 2021–March 2023.

Type of PHC	Number of PHCs Empaneled with BPJSK That Received TB Readiness Certificates	Number of PHCs Empaneled with BPJSK (as of March 2023)
Public primary care centers (puskesmas) and public clinics	43 (82.7%)	52
Private clinics	123 (93%)	131
General physicians	6 (100%)	6

Abbreviations: BPJSK, Badan Penyelenggara Jaminan Sosial Kesehatan; PHC, primary health center; puskesmas, pusat kesehatan masyarakat; SHP, strategic health purchasing; TB, tuberculosis.

By the end of 2022, more facilities were opting for higher levels of TB service commitment as measured by the DPPM options framework. The percentage of health facilities that chose option 4 increased from 11.69% in the first assessment to 46.67% after BIMTEK. This is likely an effect of the TB SHP pilot model on health facilities' commitment to provide access to high-quality and comprehensive TB services.

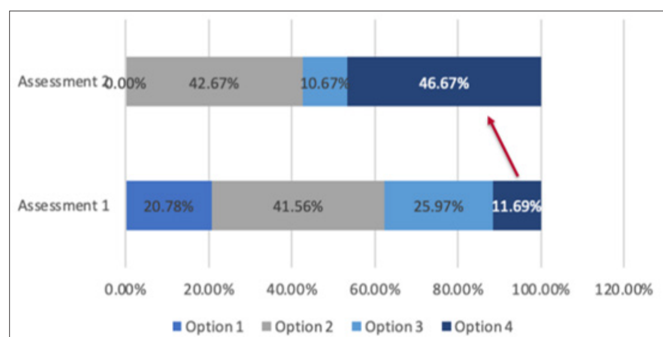


Figure 2: Improvement in TB Service Delivery Commitment during the TB SHP Pilot, Medan, January 2021-October 2022

Abbreviations: DPPM, district public-private mix; SHP, strategic health purchasing; TB, tuberculosis.

There was a dramatic increase in presumptive TB cases reported via the SITB platform by private primary health care facilities (both clinics and general physicians) from 2020 to 2022. In 2022, 1,490 cases of presumptive TB findings were reported, an increase of 108% from the 716 cases reported in 2020.

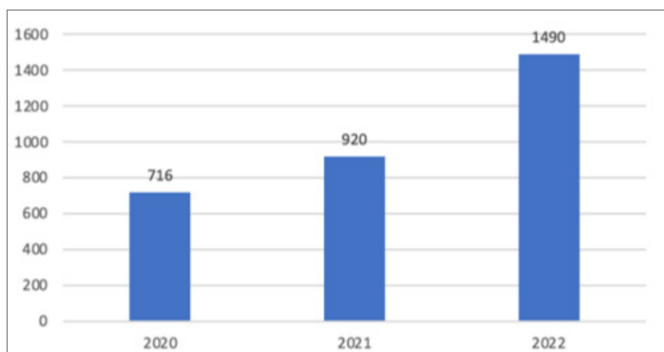


Figure 3: Presumptive TB Cases Reported to the SITB by Private PHCs, Medan, 2020–2022

Abbreviations: PHC, primary health center; SITB, Sistem Informasi Tuberkulosis; TB, Tuberculosis.

In terms of human resource readiness, the results of the TB service readiness assessments in Medan showed that in the first assessment, only 67.1% of primary health care facilities had designated TB officers and only 27.1% had TB officers who had received BIMTEK training. In the second readiness assessment, the proportion of health facilities with TB-designated officers increased to 81.6%. Additionally, 69.7% of primary health care facilities had also received training for those TB officers.

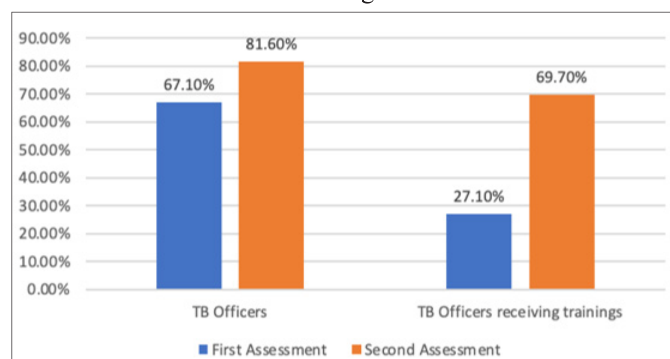


Figure 4: Human Resource Readiness among PHC TB Officers, Medan, January 2021–October 2022

Abbreviations: PHC, primary health center; TB, tuberculosis.

Progress in Denpasar

In Denpasar, the first round of TB care certifications was completed in 2022 and the second round finished in April 2023. The project team also organized a coordination meeting in the third quarter of 2022 to improve private facilities' engagement in providing TB care and streamline data consolidation between P-care and SITB, attended by representatives of the Denpasar DHO, BPJSK, the Coalition of Indonesian Professional Organizations for Tuberculosis Control, and the Private Health Facilities Association.

Table 4: PHCs That Received TB Readiness Certificates during the TB SHP Pilot, Denpasar, January 2021–March 2023.

Type of PHC	Number of PHCs empaneled with BPJSK that received TB care certificates	Number of PHCs empaneled with BPJSK (as of March 2023)
Public primary care center (puskesmas) and public clinics	13 (76%)	17
Private clinics	37 (100%)	37
General physicians	47 (90%)	52

Note: BPJSK, Badan Penyelenggara Jaminan Sosial Kesehatan; PHC, primary health center; puskesmas, pusat esehatan masyarakat; SHP, strategic health purchasing; TB, tuberculosis.

Similar to Medan, an increase in health facilities' commitment to provide access to high-quality and comprehensive TB services was also observed in Denpasar City. This was demonstrated by the shift in facilities' commitment to DPPM options. The most obvious increase was in private PHC facilities choosing option 2. In the first readiness assessment, 32.20% of private PHC facilities chose this option. This increased to 41.67% after BIMTEK. In Denpasar, 100% of the puskesmas chose DPPM option 4, but the proportion of private PHC facilities that chose this option saw little change due to their high dependence on reporting through the puskesmas' SITB account (option 4 requires independent reporting). Private sector facilities in the city of Denpasar have only been engaged in delivering and reporting on TB care since July 2020, when the Coalition of Indonesian Professional Organizations for Tuberculosis Control formed and routine monitoring and evaluation activities began. In contrast, Medan City has long been engaged in DPPM activities, prior to the TBPS activity, which began in 2019.

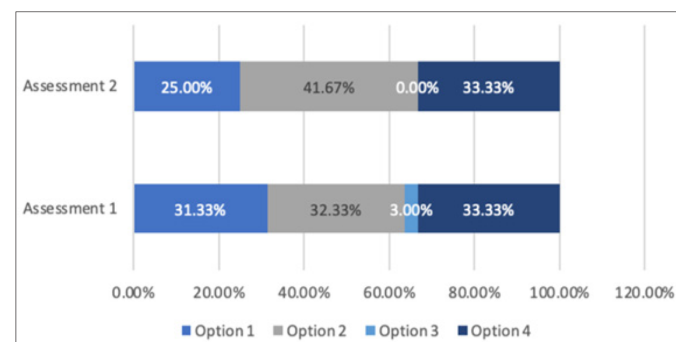


Figure 5: Improvement in TB Service Delivery Commitment during the TB SHP Pilot, Denpasar, January 2021–October 2022

Abbreviations: DPPM, district public-private mix; SHP, strategic health purchasing; TB, tuberculosis.

There was also a dramatic increase in TB case reporting in Denpasar. Presumptive TB cases reported via the SITB platform by private PHC facilities and independent general physicians increased from 0 (because previously there was no private sector engagement in TB case finding) in 2020 and 2021 to 437 in 2022.

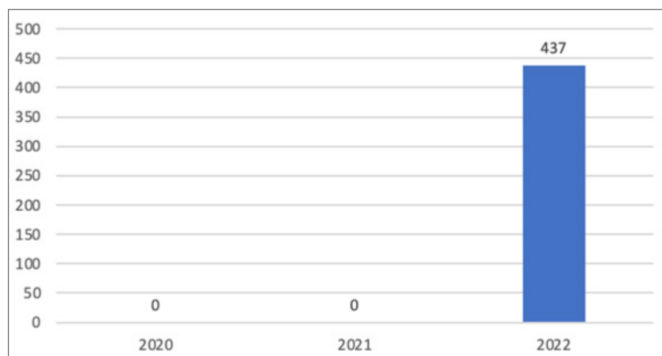


Figure 6: Presumptive TB Case Findings Reported to the SITB by Private PHCs, Denpasar, 2020–2022

Abbreviations: PHC, primary health center; SITB, Sistem Informasi Tuberkulosis; TB, tuberculosis.

From the human resource readiness perspective, the first readiness assessment showed that only 37% of PHC facilities had designated TB officers and only 21% had TB officers who were specifically trained for their role. Results of the second readiness assessment showed that 57% of PHC facilities had officers who specifically served TB patients and 69% of health facilities had sent TB officers to a TB service training.

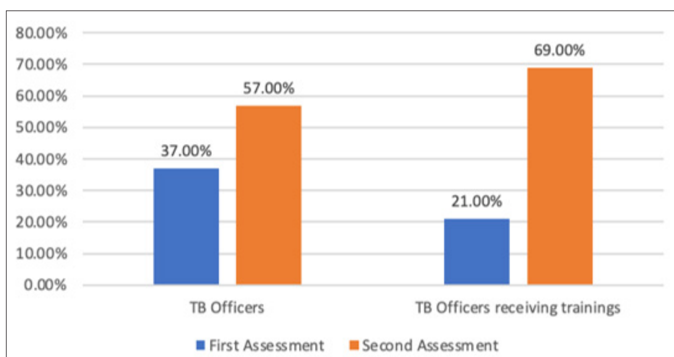


Figure 7: Human Resource Readiness among PHC TB Officers, Denpasar, January 2021–October 2022

Abbreviations: PHC, primary health center; TB, tuberculosis.

Regulatory Changes Relevant to TB SHP Implementation

Minister of Health Regulation No. 3 (2023) on JKN Standard Payment Rates

In January 2023, the Minister of Health issued Permenkes (Regulation) No. 3 of 2023 on the adjustment of JKN's standard payment rates for health services. This regulation outlines new incentives and disincentives for PHCs that will help link payments to the quality of care through a risk-adjusted capitation mechanism. This payment mechanism will use a capitation coefficient factor that takes into account human resources, infrastructure, scope of services, and service commitments. While the regulation does not currently provide details on TB-related performance indicators, these could be added to govern PHC performance on TB service commitment criteria (see Table 5 below). It is unclear how the regulation will affect TB service delivery in the short term without specifying TB indicators.

Table 5: Comparison of the TB SHP Pilot and the 2023 MOH Regulation on JKN Standard Rates (Permenkes No. 3 of 2023)

Regulation No. 3 Year 2023	Comparison between Regulation No. 3 and TB SHP Pilot	Opportunities
Capitation coefficient factors are included in the risk-adjusted capitation mechanism.	The capitation coefficient factors are determined from several technical criteria: human resource readiness, completeness of infrastructure, scope of service, and service commitment. There are no specific technical criteria directly related to TB.	There is an opportunity to include accreditation results related to TB (and possibly other national programs) as one of the variables in determining coefficient factors in JKN capitation. *
Incentives and disincentives for PHCs are provided through a risk-adjusted capitation mechanism.	The regulation does not mention in detail any PHC performance indicators related to TB services.	PHC performance indicators related to TB services could be linked to supply-side financing/BOK Kinerja or demand-side financing/JKN payments.
TB screening (physical examination of the lungs) is included in the capitation tariff at PHCs.	The TB SHP pilot included a proposal to have separate payments for diagnosis tests and treatments, outside of physical examinations.	There is still an opportunity to propose an individual service fee for ancillary diagnostic tests (nonphysical examinations) covered by JKN.

Abbreviations: BOK, Bantuan Operasional Kesehatan (operational health funds,); JKN, Jaminan Kesehatan Nasional; PHC, primary health center; SHP, strategic health purchasing; TB, tuberculosis.

* The alignment of quality assurance tools in the latest regulations on PHC accreditation and those in the TB SHP certification requirements is explained in more detail in the Way Forward section below.

Comparison of TB Service Quality Assurance Components in the TB SHP Pilot Certification Intervention and the Latest MOH Regulations on PHC Accreditation

During implementation of the TB SHP pilot from 2021 to 2023, the MOH enacted regulatory changes to promote the quality of TB services by updating clinical guidelines with the latest standards (MOH Decree HK.01.07/MENKES/1936/2022) and adjusting PHC accreditation requirements to include criteria for evaluating TB services periodically (MOH Regulation No. 34 of 2022 ; Decree of the Director General of Health Services HK.02.02/I/3991/2022 ; Decree of the Director General of Health Services HK.02.02/I/105/2023 . The updated accreditation criteria serve as the minimum benchmark for human resource readiness, systems and procedures, facilities and infra-

structure, and scope of services. These components are similar to the TB SHP pilot's quality assurance components, especially the certification process.

Table 6: Comparison of TB Service Quality Assurance Components in the Latest MOH Regulations and in the TB SHP Pilot Certification Intervention

TB Service Quality Assurance Component	Latest MOH Regulations on PHC Accreditation	TB SHP Pilot Certification Intervention
Human resources readiness	Puskesmas (public PHCs) are required to have a TB Directly Observed Treatment team that comprises a physician, a nurse, a lab analyst, and a trained TB reporting officer. There are no specific human resources-related assessment criteria for private PHCs.	Both public and private PHCs are required to have a minimum of one designated TB officer. The TB officer needs to attend a training, webinars, workshops, and seminars on TB diagnosis, treatment, and reporting every two years.
Systems and procedures	Puskesmas record and report on TB cases in accordance with established procedures. Private clinics carry out TB program recording and reporting through SITB independently (per MOH circular letter HK.02.01/MENKES/660/2020) .	Both public and private PHCs have facilities and infrastructure for recording and reporting TB cases, as well as access to TB surveillance systems (SITB/WIFI TB—the TB reporting system for private facilities).
Facilities and infrastructure	Logistics support should be provided by puskesmas, both TB drugs and drugs for other symptoms, according to program needs and managed in accordance with procedures. Private clinics should establish infection prevention and control policies and procedures.	PHC facilities have supply of anti-TB drugs and access to (or ownership of) TB diagnosis equipment.
Scope of service	Puskesmas should carry out TB services ranging from finding presumptive TB cases, to establishing a diagnosis, determining the classification and type of TB, and implementing case management, which consists of treating, monitoring, and evaluating patients. Private clinics should perform TB promotive and preventive services included in the national programs (one of which is TB) according to standards.	TB cases are included in the general group of diseases that are managed by physicians with a competency level of 4A, meaning newly graduated doctors who can make clinical diagnoses and manage the disease independently and comprehensively at the PHC. Health facilities provide education and consultation on TB.

Note: MOH, Ministry of Health; PHC, primary health center; puskesmas, pusat kesehatan masyarakat; SHP, strategic health purchasing; SITB, Sistem Informasi Tuberkulosis; TB, tuberculosis; WiFi TB, Wajib Notifikasi TB.

Lessons Learned

1. Advocacy for the implementation of the TB SHP pilot required high-level support to mitigate challenges related to the regulatory environment and bureaucratic inertia at key institutions.
2. The inclusion of TB service readiness certification in the JKN credentialing process improved health facilities' commitment to providing comprehensive quality TB services.
3. Tripartite coordination between DHO, BPJSK Branch office, and health facility associations within the DPPM framework increased the involvement of primary health facilities, especially in the private sector, in TB case detection and case reporting through SITB.
4. Technical training activities (BIMTEK), including on the job training (OJT) facilitated by DHOs, and the involvement of BPJSK related to the modification of JKN credentialing process, led to an increase in the proportion of facilities with trained TB officers.
5. Repeated self-assessments provided useful information related to the improved capacity of health facilities in offering TB services.
6. Identification of regulatory changes during pilot implementation allowed mapping of strategic purchasing plans for future TB services.
7. Consolidation of data between P-care and SITB could be used to identify gaps in TB case reporting to identify which health facilities have the potential for increased TB case finding.

Way Forward

Scale Up the Modifications to the JKN Credentialing Process

TB SHP components implemented through this program have had tangible results on the involvement and commitment of PHCs contracted by BPJSK, especially private-sector PHCs, in increasing access to and the quality of TB services. Modification of JKN's credentialing process to include TB service quality criteria should be gradually scaled up, in tandem to the development of enabling factors such as strengthened DPPM commitment, and capacity building through e-learning/coaching.

Other Support that Would be Helpful for Scale-up Includes:

1. BPJSK collaboration with private facilities to join DPPM networks. One recommendation is to make the DPPM memorandum of understanding (MOU) a mandatory requirement to empanel with BPJSK. This has already been implemented in Medan and has yielded positive results.
2. Government financial support for additional capacity building through workshops, training, and human resource development.
3. MOH technical support in providing standardized capacity building (using e-learning tools).
4. NTP financial support for supplies and fixed-dose combination TB drugs, to ensure that partial referrals can be carried out (allowing private PHCs to refer patients upwards or horizontally for diagnosis, while continuing to offer drug treatment after back-referral). Without the ability to conduct partial referrals, facilities are limited in the DPPM option level they can commit to.
5. Commitment from the DHO and BPJSK branch office to realign referral networks between National TB Program scheme and National Health Insurance scheme for rapid molecular testing (such as with GeneXpert).

JKN Credentialing Process

The latest regulations on PHC accreditation, described in section 3.2 above, establish several criteria for evaluating TB services. These criteria will help with quality assurance for delivering TB services according to standards and can be used as a substitute for the certification process introduced in the TB SHP pilots. This quality assurance component from the accreditation regulations can then be included in the JKN credentialing criteria. However, these regulations still focus on public-sector PHCs to provide comprehensive TB services, whereas private-sector PHCs are still given responsibility for promotive and preventive services. Further recommendations are:

1. As a transitional phase, PHCs (especially in the public sector) can start using accreditation as a quality assurance tool that is included in the JKN credentialing process. Private PHCs can still use the service readiness certification mechanism with simplified components based on regional conditions and program needs.
2. For human resource capacity building, standardized e-learning tools can be used in the quality assurance process. Human resource readiness is an aspect of readiness that is assessed both in the accreditation mechanism and the certification process. At present, the USAID TB Private Sector activity has initiated an innovation to increase the capacity of TB officers by using e-learning. The module used contains a standardized curriculum developed by the MOH. This learning platform provides health workers more flexibility in terms of training time because it is carried out virtually with schedule options that participants can choose according to their availability.

Paving the Way for Future TB Payment Reforms

1. Make a short- to medium-term plan for TB payment reforms. The plan should include stakeholders' roles and functions to ensure accountability for implementation in the future. The Minister of Health should collaborate with the BPJSK President Director to form a joint legal team to evaluate the feasibility of piloting modifications to the JKN payment mechanism and integration of the JKN and NTP reporting platforms for TB cases. This should be done with the goal in mind of establishing a clear start date for the pilot, which could take place as early as 2023. The legal team should also analyze other regulations that would allow pilot-testing of payment innovations that are cost-effective and/or improve service quality. Additionally, each pilot needs to be rigorously evaluated to determine its impact, and it must be discontinued if it fails to meet its objectives. Moreover, the MOH should lead discussions to identify which components of TB services need to be reimbursed by JKN outside of the current payment system and negotiate ways to pilot-test SHP for these services, with a specific focus on reimbursement for TB diagnostics and treatments.

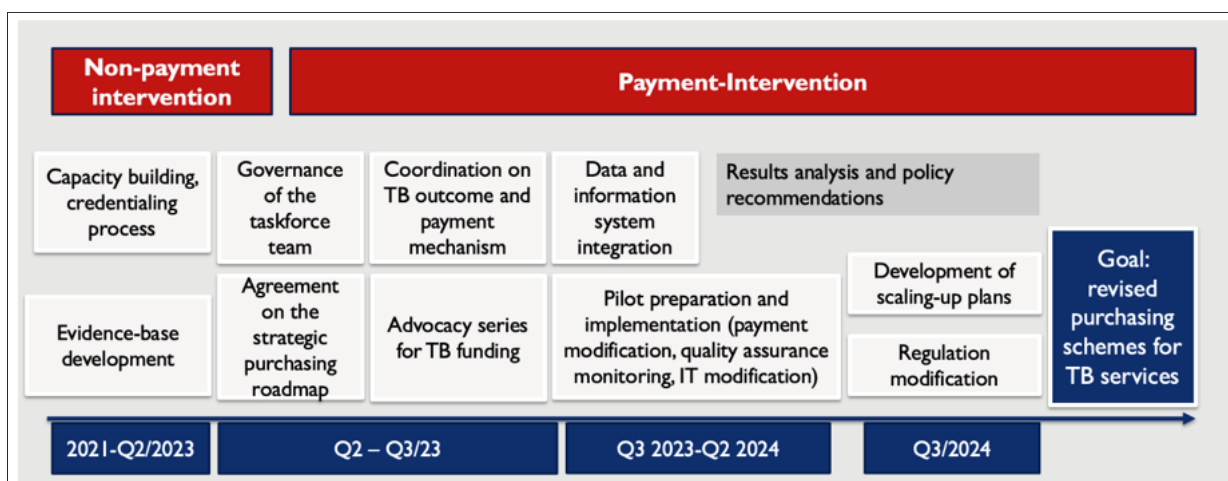


Figure 8: Proposed TB Payment Reform Timeline

Abbreviations: IT, information technology; Q, quarter; TB, tuberculosis.

1. Integrate TB financing as one of the national priority programs in the Minimum Service Standards. The momentum of government to support health facilities in meeting service standards for an essential health service package, including TB, is very strong. The majority of fiscal and non-fiscal resources are being used to support this. In terms of demand-side financing, we propose that TB notifications and successful treatment rates be included as indicators for performance-based capitation, alongside other Minimum Service Standard indicators.

2. In terms of supply-side financing, several TB quality indicators can be linked with the payments to puskesmas. BOK Puskesmas (also called BOK Kinerja) is a financial assistance from the central government through the MOH to help puskemas to improve their performance and their networks. BOK funding aims to build provider's capacity to meet minimum service standards, including for promotive and preventive health services.
3. For positive incentives, an additional non-capitation incentive for TB care is needed beyond the current JKN capitation mechanism for PHCs. These additional incentives need to be provided for individual TB service delivery indicators, such as case reporting, microscopic evaluation during treatment, and treatment success outcomes.
4. A novel proposal that could become a local innovation would be adopting the merit-based incentive scheme adapted from the Center for Medicare and Medicaid Services' Shared Saving Program (Self and Coffin 2017). BPJSK, together with PHCs, could collect a very small proportion of JKN fundings (for example, JKN capitation) to use as a reward for PHCs that achieve the minimum service standard targets that are mutually agreed upon in a region. This would require a strong commitment from regional leaders, the DHO, the BPJSK branch, and PHCs.

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