Center for Tropical Medicine
Universitas Gadjah Mada

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Faculty of Medicine, Public Health and Nursing (FK-KMK)
Gadjah Mada University

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Authors

dr. Riris Andono Ahmad, MPH.,Ph.D

Prof. dr. Ari N. Probandari, MPH, Ph.D

Christa Dewi, SKM, M.Nur., Ph.D

dr. Firdaus Hafidz As Shidieq, MPH, Ph.D

Annisa Satriani, SKM, MPH

Agus Kuntarto, S.Si

Dr. dr. Bagoes Widjanarko, MPH, MA

Prof. DR. Chatarina Umbul Wahyuni, MS, MPH

Dr. dr. Ratih Puspita Febrinasari, M.Sc

Book Designers

Edy SR

Ahmad Arifin

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PREFACE

Dr. Siti Nadia Tarmizi, M.Epid.

Director of Directly Transmitted Communicable Disease Prevention and Control, Directorate General of Disease Prevention and Control, Ministry of Health of the Republic of Indonesia.

We acknowledge the importance of these study findings for the National Tuberculosis Program. The evidence generated by this study will be the basis for further policy improvements to tackle the catastrophic costs faced by TB patients. Actions should be taken together with all sectors and the community to achieve zero TB-affected households facing these catastrophic costs.

We are grateful to the Provincial Health Offices and District and Municipal Health Offices for the support provided during the field data collection. A special word of gratitude is due to the health care providers at the various health care facilities, field coordinators, and data collectors. They worked tirelessly and put their lives at risk in data collection during the COVID-19 pandemic yet becoming the role models in practicing health protocols during those processes. A token of gratitude is also delivered to all patients with TB who participated and cooperated during the data collection.

The National Tuberculosis Program appreciates the financial support provided by the Global Fund for AIDS, Tuberculosis and Malaria and the World Health Organization for the first Tuberculosis Patient Cost Survey conducted in Indonesia. We also appreciate the continuous technical support provided by the Technical Advisory Group of the World Health Organization during the data collection and analysis. Our acknowledgement also goes to the Center for Tropical Medicine of Universitas Gadjah Mada, collaborating with Universitas Airlangga, Universitas Diponegoro, and Universitas Sebelas Maret during the data collection, analysis and report writing process.

Finally, let us work together to achieve TB elimination in Indonesia by 2030.

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ABBREVIATION & ACRONYMS

BMI	Body Mass Index
BPJS	Badan Penyelenggara Jaminan Sosial/ National Social Security Agency
CDR	Case Detection Rate
CNR	Case Notification Rate
DHO	District Health Office
DM	Diabetes Mellitus
DOT	Directly Observed Therapy
DR-TB	Drug-Resistant Tuberculosis
DS-TB	Drug Sensitive Tuberculosis
HIV	Human Immunodeficiency Virus
IDR	Indonesian Rupiah
ISTC	International Standard of Tuberculosis Care
MDR-TB	Multidrug-resistant Tuberculosis
MHREC	Medical and Health Research Ethics Committee
NTP	National Tuberculosis Programme
RR	Rifampicin Resistant
SDGs	Sustainable Development Goals

SITT	Sistem Informasi Tuberkulosis Terpadu/ Integrated Tuberculosis Information System
TB	Tuberculosis
TB-IVS	National Tuberculosis Inventory Study
UHC	Universal Health Coverage
USD	United States Dollar
WHO	World Health Organizations

GLOSSARY

Catastrophic total costs due to TB.
Out-of-pocket payments for TB health care services (direct medical and non-medical cost, income loss or indirect non-medical cost), exceeding a given threshold (i.e. 20%) of a household's annual pre-TB income. The focus is on financial and economic hardship, which may adversely affect living standards and capacity to pay for basic needs. The percentage of patients with TB (and their households) treated in the NTP network that incurred total catastrophic costs due to TB is one of the three top indicators of the End TB strategy.

Coping.
TB patients' mechanism to cope with the financial situation due to TB, by dissaving, borrowing funds, or selling assets to finance TB health care expenditure.

Direct medical cost.
Out-of-pocket payment for TB services (e.g. hospitalization, consultation, radiography and other imaging, laboratory procedures, medicine) during directly observed therapy, follow-up, and hospitalization, both pre and post TB diagnosis, and net of any reimbursements.

Direct non-medical cost.
Out-of-pocket payment for TB services for non-medical expenses related to obtaining TB services (e.g. travel, food, accommodation/ renting room, nutritional supplement), and net of any reimbursement.

Health insurance reimbursement.
A type of insurance providing coverage of medical expenses that result from TB illness.

Household income.
The average amount of money an individual or household receives per month, in exchange for labor or services, from the sale of goods or property, or as a profit from financial investments.

Household.
A small group of persons who share the same living accommodations.

Impoverishment.
The poverty threshold estimated among the TB-affected households (poverty headcount ratio) was calculated using the internationally defined poverty line for "extreme poverty" at the US $ 1.90 (at purchasing power parity in 2011) before and after the TB illness.

Income loss.
Economic costs of patients or households incurred as a result of TB condition. Income loss is estimated using self-reported household income loss, that is, the net effect of income change before, compared to the TB episode.

Indirect non-medical cost.
Productivity and economic costs of a patient or household incurred due to TB health care visits and hospitalization during the TB episode. Indirect costs are estimated using the total period of absence in hours multiplied by the hourly wage rate of the absent workers.

Social support.
All assistance, including in-kind or cash transfers, including social assistance (e.g. education support, rice subsidies, disability grants, etc.) and vouchers from the NTP.

TB episode.
The period from "self-reported onset of TB-related symptoms" until the end of treatment. The extrapolation technique proposed in this survey assumes 100% treatment completion.

TB patient cost survey.
Survey of costs faced by TB-affected patients and their households.

EXECUTIVE SUMMARY

Tuberculosis (TB) remains a major health problem in Indonesia, with an estimated 824,000 cases per year. Although the case notification rate and treatment success rate were increased significantly due to the intensified actions to improve access to TB diagnosis and treatment, underreporting and underdiagnoses remain a challenge in TB control programs in Indonesia (1,3).

Tuberculosis is more prevalent in poor and marginalized people and communities. In addition, TB illness has a great potential to worsen the financial state of already socioeconomically problematic and impoverished individuals and households (3). This situation will lead to access and adherence barriers that can affect health outcomes and increase the risk of disease transmission. This survey aimed to estimate the proportion of the catastrophic costs experienced by TB patients' households, identify the main drivers of different types of costs incurred by patients with TB, and the impact of any social assistance/protection on TB households' catastrophic costs. This survey will guide the policy and strategy development to improve TB service delivery and minimize the adverse socioeconomic impact of TB. The findings will also be used as baseline data to monitor the progress of TB elimination and the implementation of Universal Health Coverage (UHC) in Indonesia.

This is a nationally representative, stratified cluster random sampled cross-sectional survey. We interviewed 990 drug-susceptible TB (DS-TB) and 178 multidrug-resistant TB (DR-TB) patients across 25 districts in Indonesia. We recruited patients who were on treatment for at least two weeks during their intensive or continuation phase. In this survey, the information obtained from the patients included direct cost, income loss, time loss, non-medical cost (food, transport, food supplement), income, and coping strategies.

Overall, 38.4% of TB affected households, including 80.7% of DR-TB affected households, experienced catastrophic costs. Thus, although the NTP social protection has significantly reduced the catastrophic cost among DR-TB patients (from 80.7% to 55.5%), the proportion of households experiencing catastrophic costs after social protection is still considerably high.

Total costs incurred by households facing catastrophic costs due to TB were calculated using the output approach by calculating direct cost and income loss and the human capital approach by calculating the direct and indirect cost. The average household catastrophic cost using the output approach in the public sector was USD 1,062 (IDR 15.4 million) in the period of treatment with the highest cost component on income loss (USD 564.1; IDR 8.2 million). Meanwhile, the average household catastrophic cost using the human capital approach was USD 621 (IDR 9.0 million) in the period of treatment with the highest cost component on direct non-medical cost (USD 359.6; IDR 5.2 million) and 80% of it was for a nutritional supplement (USD 289.9; IDR 4.2 million). To cope with this, about 75% of TB affected households used negative coping mechanisms, such as cashing out their savings, taking loans and selling their assets mostly to cover their living cost. The findings also showed that low economic status, being diagnosed with DR-TB, being hospitalized and having treatment observers were the most significant risk factors for the catastrophic cost among patients with TB in the public sector.

Regarding the catastrophic cost in the private sector, the average household catastrophic cost in the period of treatment using the output approach was USD 1,181 (IDR 17.1 million) using the output approach and USD 1,098 (IDR 15.9 million) using the human capital approach. Similarly, the highest cost component using output approach was on income loss (USD 291.8; IDR 4.2 million) and direct non-medical cost using human capital approach (USD 728.9; IDR 10.5 million) that 85% of it was also for a nutritional supplement (USD 622; IDR 9 million). In addition, about 81% of TB affected households also used negative coping mechanisms like cashing out their savings, taking loans and selling their assets to cover their daily cost.

In terms of the socioeconomic impact of TB, the unemployment due to TB in the public sector has increased to more than 50% and there was a 10% reduction among those who worked in informal and formal sectors that lost their jobs or changed their employment status after being diagnosed with TB. Meanwhile, the unemployment level among the patients in the private sector also increased to nearly 60%. Additionally, about 4% of patients with TB reported being fired from their jobs due to TB.

This survey recommends interventions to improve the coverage and benefits of social protection to TB patients to cover direct non-medical costs that were considered to be the main driver for the catastrophic cost for both patients with DR-TB and patients with DS-TB. Additionally, the government should ensure job security for all TB patients by developing and implementing law to eliminate discrimination and ensure job security for patients with TB. Therefore, multi-sectoral engagement and collaboration are required to address these problems, including BPJS Ketenagakerjaan and the Ministry of Workforce.

CHAPTER 1
BACKGROUND

Health is an integral component of an effective strategy in reducing poverty. Good health can increase productivity and the income of households, whereas poor health is likely to lower productivity and income. Thus, improvements to health can provide poor households with the opportunity to escape poverty by increasing their productivity and well-being (1).

Tuberculosis (TB) remains one of the top 10 causes of death worldwide and the leading cause by an infectious disease, with an estimated 10 million people falling ill from TB each year. In 2020, TB was responsible for an estimated 1.3 million deaths worldwide, with 214,000 TB-HIV deaths. The region of SouthEast Asia contributes to 43% of the global TB burden. Being one of the largest and most populated countries in Southeast Asia, Indonesia also contributes highly in the number of global TB cases, ranking third overall in TB incidence with estimation at 824,000 (95% CI: 755,000-897,000) (2).

TB is a disease that is more prevalent in poor and marginalized people and communities. In addition, TB illness has a great potential to worsen the financial state of already socioeconomically problematic and impoverished individuals and households. Expenses related to TB diagnosis and treatment are often aggravated by costs associated with transportation to treatment facilities, temporary accommodations and food, loss of income due to time spent seeking and receiving treatment, or loss of employment due to disability or discrimination. These costs can lead to catastrophic consequences for patients with TB and their families (3).

TB patients often incur extensive costs related to illness and seek and receive health care. Such costs can develop access and adherence barriers that can affect health outcomes and increase the risk of disease transmission. These costs can also contribute to the economic burden of households. A systematic review of multiple studies on patients with TB and household costs has indicated that, on average, losses can be equivalent to more than

a household's one-year total financial income. Furthermore, patients with multidrug-resistant TB (MDR-TB) and their households tend to have an even more significant socioeconomic challenge and frequently face devastating costs. As a result, many affected people cannot complete the entire course of TB treatment, with consequences for their health and well-being and at the risk of perpetuating disease transmission (3).

While out-of-pocket medical expenditures are significant, loss of income is often the primary contributor to economic hardship. In addition, direct non-medical costs, such as travel expenses and food purchasing costs during health-seeking, are also significant due to the usually long health-seeking period and the six-month to two years of TB treatment (4).

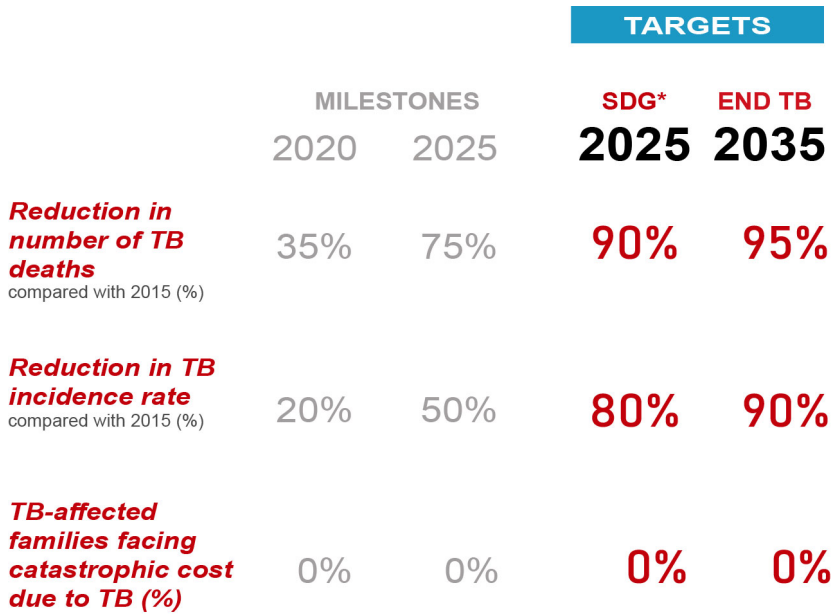
It is pivotal to address the direct and indirect costs to alleviate access and adherence barriers and minimize the economic burden for patients with TB and their households. Interventions are needed to address high medical costs, costs for food and transport, and loss of earnings. Therefore, both health financing and delivery models, as well as socioeconomic protection mechanisms (such as job protection, paid sick leave, social welfare payments, or other cash transfers of any kind) need to be considered (5,6).

The End TB Strategy and the Sustainable Development Goals (SDGs) have a common objective: to end the global TB epidemic with specific achievement targets. One of the three main targets of the End TB Strategy is that no TB patients and their households should face "catastrophic costs" due to TB. Catastrophic costs due to TB is defined as all medical and non-medical out-of-pocket payments and indirect costs due to TB exceeding a given threshold (e.g. 20%) of the household's annual income. Progress monitoring towards this target may also inform monitoring of progress towards Universal Health Coverage (UHC). UHC means that everyone, irrespective of their standard of living, receives the health services they require and that using health services does not cause financial hardship.

In 2014, Indonesia initiated its UHC program by offering national public insurance and engaging more providers from the private sector in the network managed by the national social security agency (Badan Penyelenggara Jaminan

Figure 1. The United Nations Sustainable Development Goals (SDGs) and End TB strategy.

One of the main targets of both SDGs and the End TB strategy is that no family will suffer from catastrophic costs due to TB. The inclusion of the indicator on "catastrophic costs" is new, reflecting the importance of alleviating the heavy economic burden of TB care as a key component to global TB elimination.



* The United Nations Sustainable Developments Goals (SDGs) include ending the TB epidemic by 2030 under Goal 3

Sosial, BPJS) (7). This national public insurance, known as JKN (Jaminan Kesehatan Nasional) is financed through premiums paid voluntarily (informal sector), from payroll taxes (employed), or through a subsidy from the national government budget from taxes (indigents). IThe national insurance scheme assumes that direct medical costs will be decreased, covering all medical costs in primary to tertiary care (including TB-related services) (8). Indonesian people have a relatively strong preference for seeking care in the private healthcare sector (estimated at 60% of the population). Furthermore, based on population-based health-seeking behavior study, it is indicated that public health centers are preferred for consulting with TB symptoms. Still, non-DOTSprivate practitioners are a close second (9). Therefore, the involvement of more private providers in the BPJS network is also expected to impact TB control significantly, involving private providers in the BPJS network will reduce medical expenses, reportedly around three times higher than those charged by public providers (10). It will also reduce the number of people who develop TB but are not diagnosed and manage according to the International Standard of Tuberculosis Care (ISTC) (6).

WHO developed a standardized protocol for conducting a national survey to assess TB patients and their households (TB patient cost surveys) in 2015 and expanded into a handbook in 2017. TB patient cost surveys have two primary objectives:

- To document the magnitude and main drivers of different types of costs incurred by patients with TB (and their households)to guide policies to reduce financial barriers to accessing care and minimize the adverse socioeconomic impact of TB; and
- To determine the baseline and periodically measure the percentage of patients with TB (and their households) treated in the NTP network who incur catastrophic costs due to TB.

Results from TB patient cost surveys can inform policy and strategy in two major ways. First, costs can be mitigated by improving approaches to TB service delivery and financings, such as the removal of user fees and

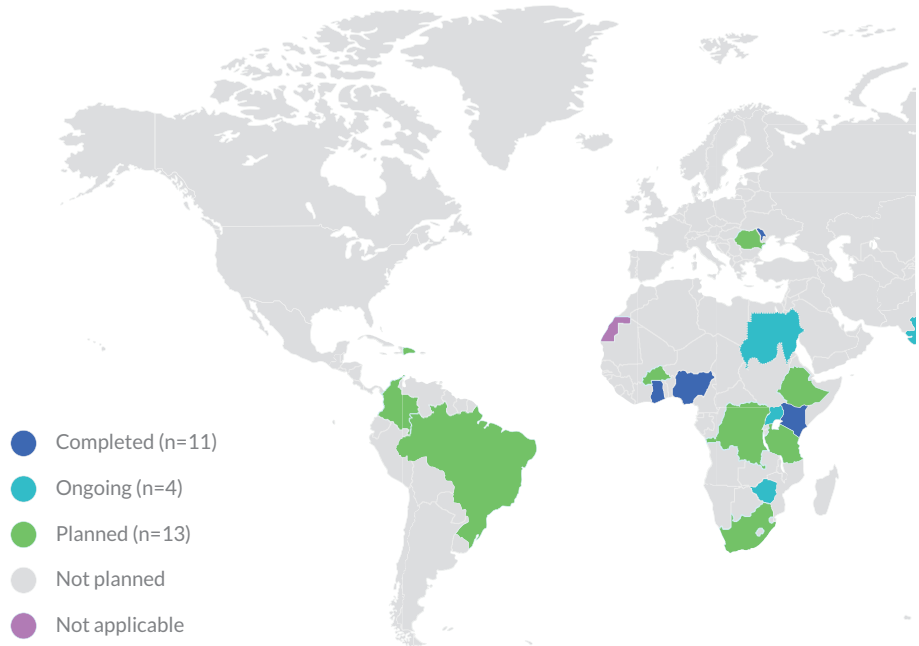


Figure 2. The global progress of Tuberculosis Patient Cost Survey around the world for the period of 2016 - 2020.

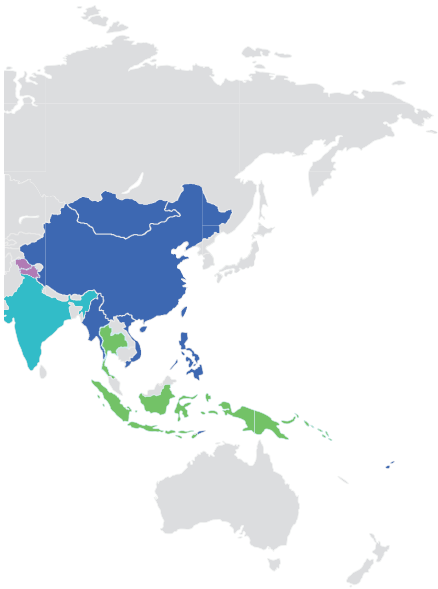
By July 2018, 11 countries had completed national TB patient cost surveys: China (2016), Fiji (2017), Ghana (2016), Kenya (2017), Mongolia (2017), Myanmar (2015), Nigeria (2017), the Philippines (2016), Republic of Moldova (2016), Timor-Leste (2017) and Vietnam (2016).

the introduction of more patient-centered models of care. Second, any costs that remain after the optimization of healthcare delivery can be mitigated by improved social protection measures, in collaboration with stakeholders across the social sector. Survey results should be used to stimulate the engagement of multisectoral partners and to facilitate policy discussion on both topics.

The World Health Organization (WHO) recommends that countries, especially in high TB burden countries, conduct a baseline TB patient cost survey by 2020. Therefore, Indonesia must conduct the country's first National TB Patient Cost Survey to monitor the country's progress for TB elimination and UHC.

TB Situation in Indonesia

Indonesia is still facing a high burden of TB cases. WHO places the country in the second rank of the highest TB burden worldwide. In Indonesia, the estimation of TB incidence is 824,000 cases or responsible for 8.4% of the total global cases in 2020. The country is also listed in global ranking in high TB/HIV burden and high MDR-TB (11).



Many intensified actions have been implemented to improve access to TB diagnosis and treatment. This is done by implementing a number of strategic plans and policies on mandatory notification, the establishment of data linkages in TB cases database and the development of digital systems for reporting cases (12). However, underreporting and underdiagnoses remain a challenge (11). According to the Ministry of Health Indonesia (13), the increased number of newly diagnosed since 2015 in which the number rose from 331,703 to 562,049 in 2019 (+69%) and was successfully reaching the international indicator (85%) for treatment rate (86,6%) in 2019 (13). In terms of the Case Notification Rate (CNR), there was a growth number from 127 in 2009 to 203 in 2019 per 100,000 population. While the Case Detection Rate (CDR) was 64,5% in 2019 which has been increased for the past ten years yet the rate was still far from the WHO recommendation for ≥ 90% (13).

The high burden of TB is linked to the risk factors, social determinants and multisectoral action. The number of TB cases in Indonesian men was 1.4 times higher than women which could be affected by the prevalence of smoking in adult men (aged ≥15 years) which is 60% (13). Out of a population of around 270.2 million, about 26.42 million Indonesians still live below the poverty line (14). Rural areas have more people living under the poverty line

at 15.26 million compared to 11.16 million in urban areas (14). This situation is undoubtedly poses an economic burden and limited access to health care barriers mainly affects those in the vulnerable socio-economic group (15). Additionally, HIV that is also known to be a contributing factor of TB burden has a total number of 50,282 cases in 2019 which is the highest number for the past ten years (16).

Table 1. Indonesia Tuberculosis Profile

Incidence	824,000 cases
Mortality	93,000 cases
Population	273.5 million
Total TB cases new and relapse notified in 2020	384,000 cases
Total MDR/RR TB cases notified in 2019	24,000 cases
Estimated MDR/RR TN among notified pulmonary TB cases	9,180 cases
Treatment success rate (new and relapse TB cases)	83%
Treatment success rate MDR/RR TB	47%
TB treatment sites	13,917
TB microscopy sites	7,471
Health facilities with Xpert MTB/Rif	860
HIV prevalence in the 15-55 years population (%/N)	75.3%/409,550
TB patients with known HIV-status who are HIV-positive	210,141

Survey Objectives

The main objective of this survey was to estimate the economic burden of households affected by all types of TB.

The specific objectives of this survey were:

1. To estimate the proportion of TB patient households suffering catastrophic costs due to TB
2. To estimate the amount of catastrophic costs due to TB by households perspective
3. To identify the main drivers of different types of costs incurred by TB patients (and their households)
4. To understand the impact of any social assistance/protection on TB household expenditure

CHAPTER 2
SURVEY ORGANIZATION

Management and Organization of the Survey

The survey was coordinated by the Center for Tropical Medicine, Universitas Gadjah Mada in collaboration with Universitas Airlangga Surabaya, Universitas Diponegoro Semarang, and Universitas Sebelas Maret Surakarta. The WHO provided technical assistance throughout the survey process, and the NTP was closely involved during the preparation and the data collection process.

Composition of Survey Team, Roles and Responsibilities

Principal Investigator (**PI**)

- Closely coordinated with the Technical Advisory Group in the implementation of the survey including data collection and data analysis;
- Validated the protocol for the survey to estimate the proportion of TB-patients experiencing catastrophic total costs;
- Maintained contact and coordination with local authorities;
- Appointed and supervised the work of the data analyst and data manager;
- Coordinated overall implementation of the survey and ensuring the survey implementation and analysis are conducted according to protocol;
- Supervised the cash flow, fund distribution and their accountability;
- Discussed any problems encountered during the survey, propose and decide the solution;
- Planed the detailed budget of the survey;

- Validated the survey results and reporting; and
- Led data analysis in coordination with the Technical Advisory Group.

Survey Coordinator

- Assisted PI in coordinating the overall implementation of the survey to estimate the proportion of TB patient households experiencing catastrophic total costs due to TB;
- Actively involved in the design of the study;
- Provided recommendations for the finalization of survey instruments
- Planned the field implementation and training needed;
- Developed plan and strategies for pilot test and finalized the strategies of data collection during the pilot test;
- Organized the writing of field SOP;
- Together with the PI, contacted and coordinated with local authorities;
- Prepared training manual and study materials;
- Trained team leaders and enumerators;
- Ensured the quality assurance for all processes is implemented according to the protocol;
- Assessed reports from team leaders and data managers;
- Supervised the data collection process;
- Oversee the provision of supplies and required materials;
- Organized the writing of activity reports and final report; and
- Provided any logistic support for the survey team.

Project Manager

- Assisted PI and survey coordinator to finalize the survey instruments;
- Assisted survey coordinator to develop plan and strategy for the pilot test;
- Developed timeline for survey implementation and register for patients' cluster involved in this survey;

- Assisted survey coordinator to prepare training materials and training implementation as well as to monitor its implementation;
- Assisted survey coordinator to develop an SOP for the implementation of the survey in the field;
- Assisted survey coordinator in monitoring the data collection process;
- Coordinated with a data manager to monitor the achievement of the target of data collection;
- Responsible for the weekly report, monthly report, and progress report;
- Assisted survey coordinator in writing up the final evaluation report;
- Conducted weekly calls and writing up the weekly report from the field based on the report from data manager, field coordinators, research assistants, and team leaders;
- Coordinated with administration & finance staff to ensure the financial report and financial request were in accordance with SOP from WHO;
- Ensured the security and confidentiality of all respondents' information; and
- Ensured the security and integrity of survey materials.

Team Leader

- Coordinated the survey implementation with the local government in the areas within their responsibility
- Responsible for the organization and proper implementation of the survey in their appointed facility or cluster of facilities;
- Coordinates the day-to-day survey implementation;
- Assisted survey coordinator to ensure that interviews and data validation is implemented according to appropriate standards; and
- Prepared periodic reports for the survey coordinator that include, the number of subjects enrolled in the survey, and a tabulation of all activities performed; discuss without delays problems encountered and solutions implemented.

Data Analyst

- In close coordination with PI, responsible for data analysis throughout the survey; and
- Responsible for conducting periodic data cleaning.

Data Manager

- Coordinated data management activities for the survey: receiving, batching, cleaning, merging data from different sources;
- Responsible for the validation of double data entry;
- Ensured that data are properly stored and backed up;
- Checked validated data files regularly for systematic errors (cleaning);
- Developed data entry software and tools, effective and feasible to support the survey;
- Prepared database to be ready for analysis and data entry screens;
- Contributed to the analysis of results;
- Responsible for completion of regular data management reports;
- Liaised with the survey coordinator on a regular basis; and
- Reported without delay any problems encountered in data management.

Research Assistant

- Assisted team leader to liaise with field coordinator and to monitor the day to day data collection in the field;
- Provided assistance in monitoring and supervision to field team related to data collection;
- Assisted project manager to prepare and write up progress report (weekly and monthly); and
- Provided assistance related to administration and financial reporting to the Center for Tropical Medicine.

IT Staff

- Supported team in each consortium related to software troubleshooting;
- Ensured the mobile phones/tablets were compatible with the software used for data collection;
- Assisted data manager to train data collector to use mobile phones/tablets and software for data collection;
- Assisted data manager to ensure the mobile phones/tablets worked well at the early stage of data collection; and
- Responsible for software maintenance during the data collection.

Field Coordinator

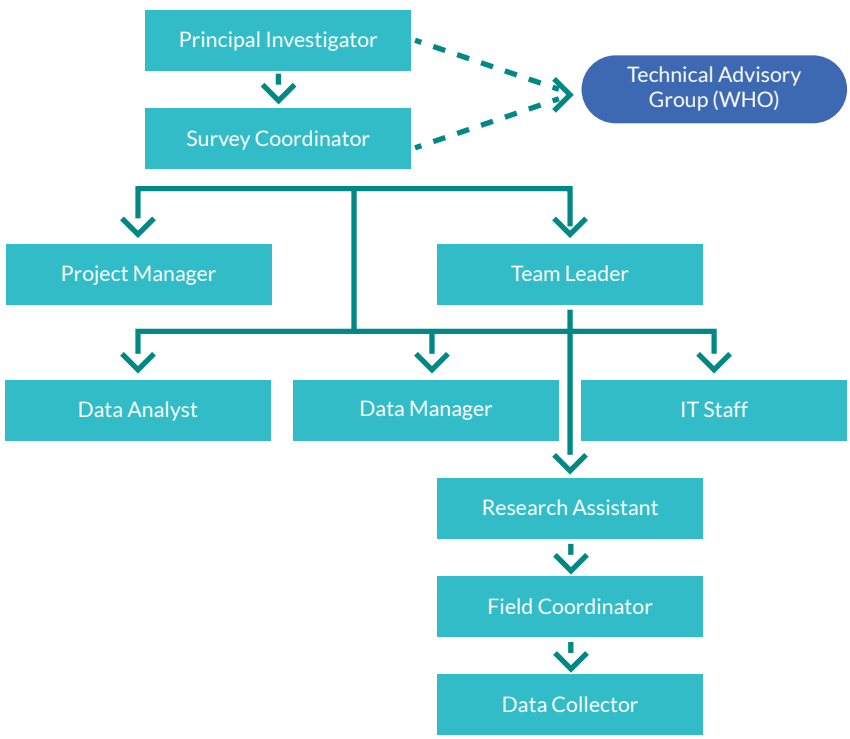
- Arranged permit letter in each district;
- Coordinated with health facilities included in this survey;
- Coordinated the selection of survey sample in each health facility with team leader;
- Provided technical assistance to data collectors related to data collection;
- Validated data collected by data collectors;
- Responsible for data monitoring submitted by data collectors to a server of the Center for Tropical Medicine;
- Performed data quality check by doing re-interview (random sampling);
- Provided weekly and monthly reports in relation to the progress of data collection to program manager, data manager, and research assistant;
- Performed day to day coordination with data collectors; and
- Ensured the number of respondents achieve the target within the period of time.

Data Collector

- Built and maintained the relationship with health care providers in health facilities;
- Responsible for the selection of respondents in closed coordination with field coordinator and keep their data security and confidentiality;

- Responsible for obtaining informed consent for carrying out the interviews and recording patient records information required in the survey;
- Responsible for carrying out the interviews and recording patient records information required in the survey;
- Potentially, responsible for uploading the survey data collected off-line and into the online designated software (delegated by the team leader, after quality ensured);
- To assure quality, the number of interviewers will be kept to a minimum to reduce the magnitude of interpersonal variation;
- Provided confirmation or follow up towards the feedback provided by the program manager or data manager via field coordinator; and
- Documented all the data collection in the field.

Figure 3. Organogram for the survey team.



CHAPTER 3
METHODS

Study Area and Design

The study was conducted in 25 districts across 14 provinces of Indonesia with a nationally representative sample population and an additional small sample to cover patients with TB who were treated outside of the NTP network (in the private health sector). This was a cross-sectional survey with retrospective data collection and projections. The study was facility-based within the NTP program networks with interviews conducted at households or health care facilities according to patients' preference.

Study Population

The study population included all patients (including children) who were on DS-TB or DR-TB treatment (in both continuation and intensive phase) from public and private facilities. These facilities deliver TB care in line with the NTP program guideline, and also register and record treatment in standard TB treatment cards and registers.

Inclusion/Exclusion Criteria

Patients enrolled on the survey had to meet the following criteria; were DS-TB or DR-TB treatment at the health facility within the NTP program network; at least two weeks into the intensive or continuation treatment phase; and provide informed consents. We included children in this survey, but the interview was obtained from their parents or caregivers, and data collected represented their parents or caregivers' costs. Meanwhile, inmates treated in correctional facilities, patients in military/police healthcare facilities and those who have not started TB treatment were excluded in this survey. In addition, we excluded patients with TB infection or TB exposure for preventative treatment and patients with pulmonary TB less than two weeks in their current treatment phase.

Sample Size Calculation and Sampling

Sampling of clusters

A stratified cluster random sampling method was applied in this survey, in which districts and healthcare facilities were sampled as primary and secondary sampling units. Stratification was based on drug-resistant status and geographical regions. We created three strata to represent patients from three regions (Java-Bali, Sumatra and Eastern Indonesia Region) for patients with DS-TB. In addition, a different national stratum representing patients with DR-TB was added. We used the Probability Proportional to Size (PPS) method to select clusters to ensure national representativeness. Within each stratum, districts were randomly selected, with the probability of selection was proportional to the number of notified cases in 2018 as reported in SITT (NTP's TB Information System). Subsequently, two healthcare facilities were selected from each district in the same way. Tables 1 and 2 summarize cluster and sample sizes in each stratum.

Table 2. The number of Tuberculosis case notifications and study sample size per region

Region	Total cases (In the population)[1]		Sample size (In this study)					
	DS-TB	DR-TB	DS – TB			DR - TB		
	N (%)	N (%)	Number of patients[2]	HFs	Districts	Number of patients[3]	HFs	Districts
Sumatera	102,739 (22.0%)	1,707 (18.9%)	230	20	6	36	2	2
Java-Bali	265,338 (56.7%)	5,902 (65.5%)	520	38	13	119	41	6
Eastern Indonesia	99,867 (21.3%)	1,399 (15.5%)	240	24	6	23	2	2
Total	**467,944**	**9,008**	**990**	**82**	**25**	**178**	**45**	**10**

Notes:

1 Total cases at 2018

2 Number of DS-TB patients are taken from 82 number of facilities from 25 of districts through a stratified cluster random sampling method

3 Number of DR-TB patients are taken from 45 number of facilities from 10 of districts through a stratified cluster random sampling method DS-TB: Drug sensitive tuberculosis; DR-TB: Drug resistant tuberculosis; HFs: Health facilities

A separate subset of samples that were from the private healthcare sector was being selected. By using data from the Indonesian National TB Inventory Study (TB-IVS) 2016-17, two districts with a high number of private healthcare providers were selected. This separate subset of samples provided the country with valuable information concerning the current situation of TB patient's welfare that was being treated in the private sector.

Table 3. The sample size of Tuberculosis patients in the private sector

Health Facility	Total cases (In the population)[1]		Sample size (In this study)			
			Semarang		Deli Serdang	
	Semarang	Deli Serdang	Number of patients[2]	HFs	Number of patients2	HFs
Hospital	337	257	116	3	124	7
Clinic	46	90	-	-	18	4
Private practitioner	77	52	5	3	-	-
Total	**460**	**399**	**121**	**6**	**142**	**11**

Notes:

1 Total cases based on data from **the Indonesian National TB Inventory Study (TB-IVS) 2016-17**

2 Number of DS-TB patients are taken from 17 number of facilities from 2 of districts through a stratified cluster random sampling method HFs: Health facilities

Selection of sample

In coordination with a TB programmer at the DHO, the field coordinator selected two health facilities with the highest TB patients in each district. Then data collectors, in coordination with a TB programmer at the selected health facilities, collected data of patients with TB from the TB register. From the roster of eligible patients in the selected facilities provided by the TB programmer, the survey team randomly drew 20 patients per facility for DS-TB clusters and ten patients per facility for DR-TB clusters. If a chosen

facility had less than the required number of eligible patients, the survey team chose a spare facility within the district until the number recruited reached the target of 20 patients with DS-TB and 10 patients with DR-TB. Finally, the field coordinator provided the order and listing of spare facilities to augment the sample to the data collectors.

A TB programmer contacted the selected eligible TB patients and asked for their participation in this survey. The patient was informed that they had been randomly selected to take part in a survey on costs that people face when treated for TB and costs faced while seeking healthcare before the initial diagnosis of TB. Once TB patients agreed to participate in the survey, a TB programmer informed them that data collectors would contact them to make an appointment for the interview. The interview was conducted at the patient's home or health facilities, or another place as per the patient's preference.

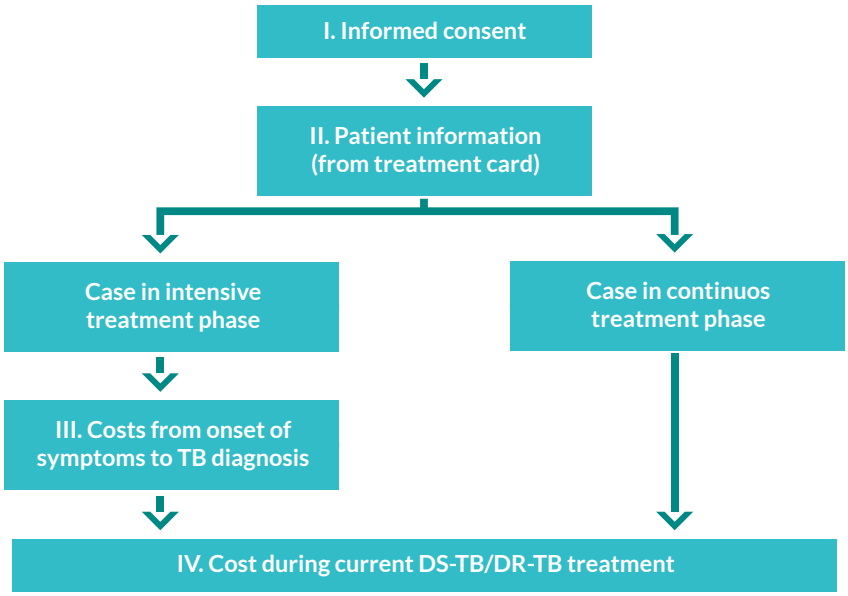
Survey Instrument & Tool Development

The survey instrument was adapted from the instrument provided by the WHO protocol used to estimate the patient costs of TB. The instrument comprised four parts:
The survey instrument has four parts:

- Part I: Patient information from TB treatment card before the interview (for all eligible patients)
- Part II: Informed consent, inclusion/exclusion criteria, and checklist for which parts of the questionnaire to fill for patients treated under different TB treatment categories and phases (for all patients)
- Part III: Time loss and costs before the current TB treatment (for new cases interviewed in the intensive phase only)
- Part IV: Time loss, cost and coping during current TB/DR-TB treatment phase (for all patients)

The flow of the survey instrument is presented in Figure 4 below:

Figure 4. The flowchart of the survey instrument components



Information from the TB treatment card (Part I), informed consent (Part II), and information about costs related to the current TB treatment (Part IV) were collected from all eligible patients. Information about costs and income loss related to health-seeking and diagnostic procedures from the onset of TB symptoms up to the moment the person was registered as a TB patient within the NTP network (Part III) were collected only from new patients either on first- or second-line TB treatment, who were interviewed in the intensive phase. In addition, patients in the intensive phase also reported on costs during the "current" intensive phase (Part IV).

On the other hand, for patients who were interviewed in the continuation phase, the information collected was limited to costs and time loss experienced during that particular phase with the exception of one question related to reporting household income at the time of diagnosis.

We used the information collected in Part III for new cases interviewed in the intensive phase to impute data and estimate costs for patients interviewed in the continuation phase and for re-treatment cases. Similarly, information about costs in the continuation phase collected from patients interviewed in this phase was used to project continuation phase costs for patients interviewed in the intensive phase.

Figure 5. The overview of the analytical approach with respect to data collection timing among new TB cases

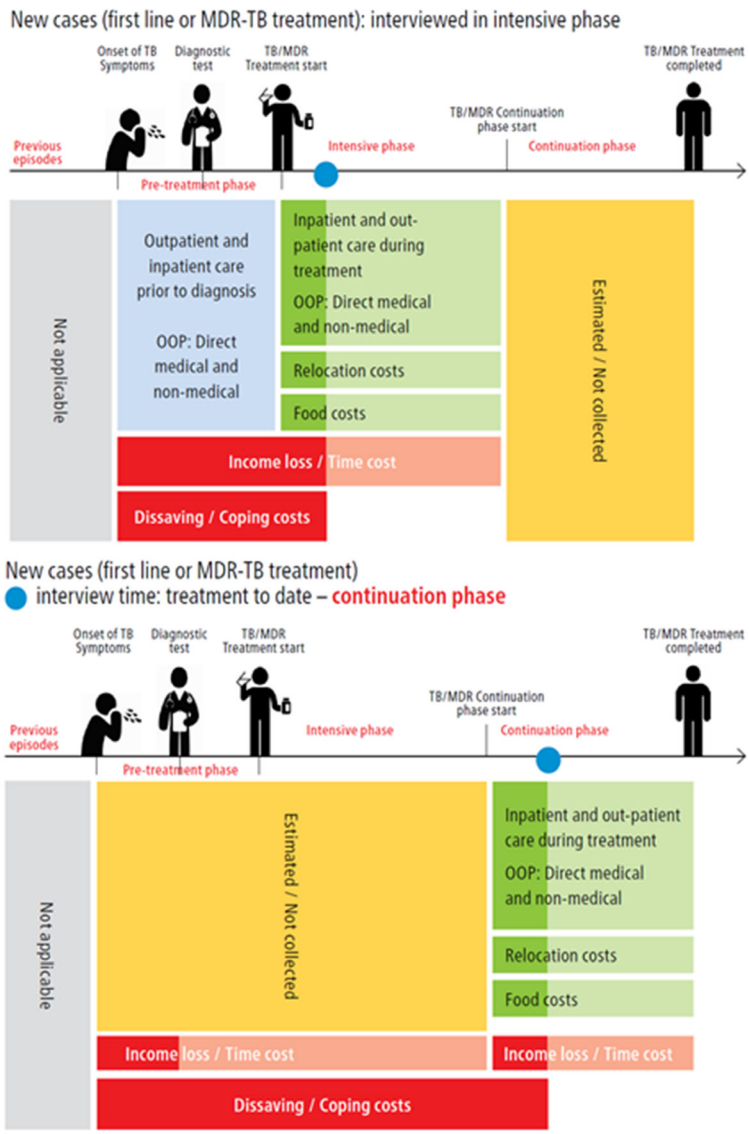


Figure 5 depicts the survey methodology: Cross-sectional survey with retrospective data collection and projections. Blue dot signals interview moment. Lighter shades of green and red mean extrapolation of past costs into the future. Yellow means costs are estimated based on some answers and other patients' data. Grey means not applicable. The complete questionnaire is included in the Annex.

The survey instrument was converted into electronic format using XLS Form format, then it was uploaded into a new project using the https://kf.kobotoolbox.org server. The electronic instrument was divided into three forms, included: 1). Respondent's eligibility form; 2). Informed consent form; and 3). Form related to patient's information, treatment cost before TB diagnosis, and treatment cost during TB treatment. The database was stored in the https://kf.kobotoolbox.org server using a password locked account that the Data Manager could only access.

All electronic forms were distributed to data collectors using a specific account for data collectors. Each data collector was given a username and password to access the form from the server and download it into their smartphone. All the forms were downloaded online, and once they had been downloaded and installed into their smartphone, they could fill the forms offline.

Data Collectors Training and Piloting

Fifty-seven data collectors performed data collection under the supervision of 25 field coordinators with relevant previous training and experience in conducting a health-related survey and were hired specifically for this survey. Training for the field team was conducted on 19 – 26 October 2020. The training consisted of the study design, the survey questionnaires, data entry procedures using an Android-based application, the selection of health facilities and respondents, and the mechanism of finance and administration during the survey implementation. The training was conducted online using the Zoom platform due to the COVID-19 pandemic. In addition, the field team received pre-recorded training materials and recording of the training.

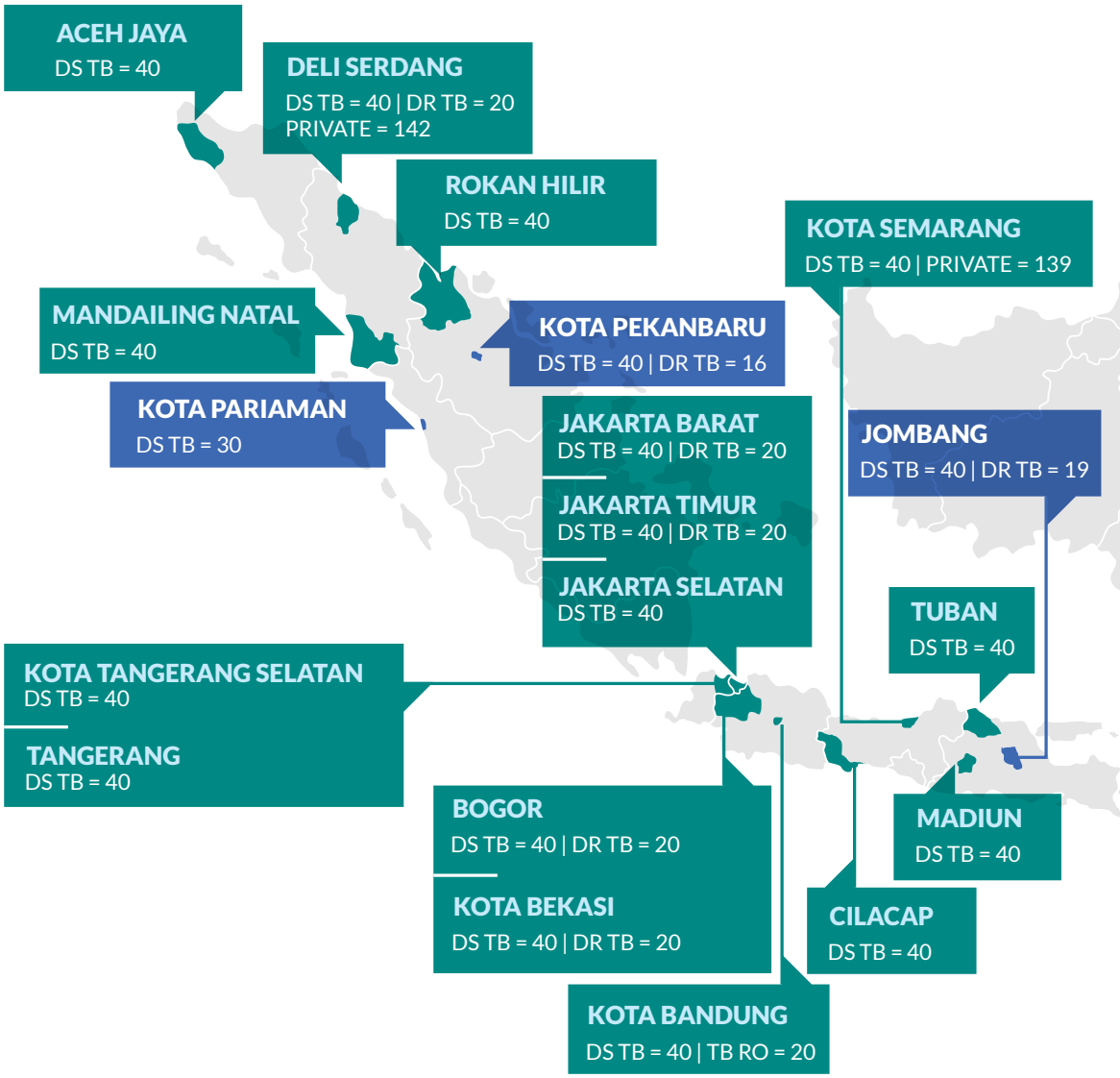
The questionnaire and electronic questionnaire were then piloted with randomly selected TB patients and their feedback after piloting were used to improve the wording of questions, the instrument-based application and their sequence.

Data Collection

The data collection was performed using paper-based questionnaires and electronic-based questionnaires using an Android-based KoBoCollect application installed in each data collector's smartphone. In addition, the participants gave signed consent forms before conducting the interviews.

The data collectors collected the data across 25 districts for about a month from November to mid-December 2020. Of 1,000 targeted DS-TB patients, only 990 TB patients could be collected. Meanwhile, in terms of patients with DR-TB, of 200 targeted respondents, only 178 respondents also could be collected during this survey. These are due to a lack of patients with TB patients or not eligible patients with TB. Regarding the patients with TB in the private sector, only Deli Serdang and Kota Semarang were selected in this survey. In total, there were 263 of 300 targeted patients with TB from hospitals, clinics, and private practitioners recruited for this survey since there was a lack of sample in clinics and private practitioners.

Figure 6. Distribution of data collection across 25 districts



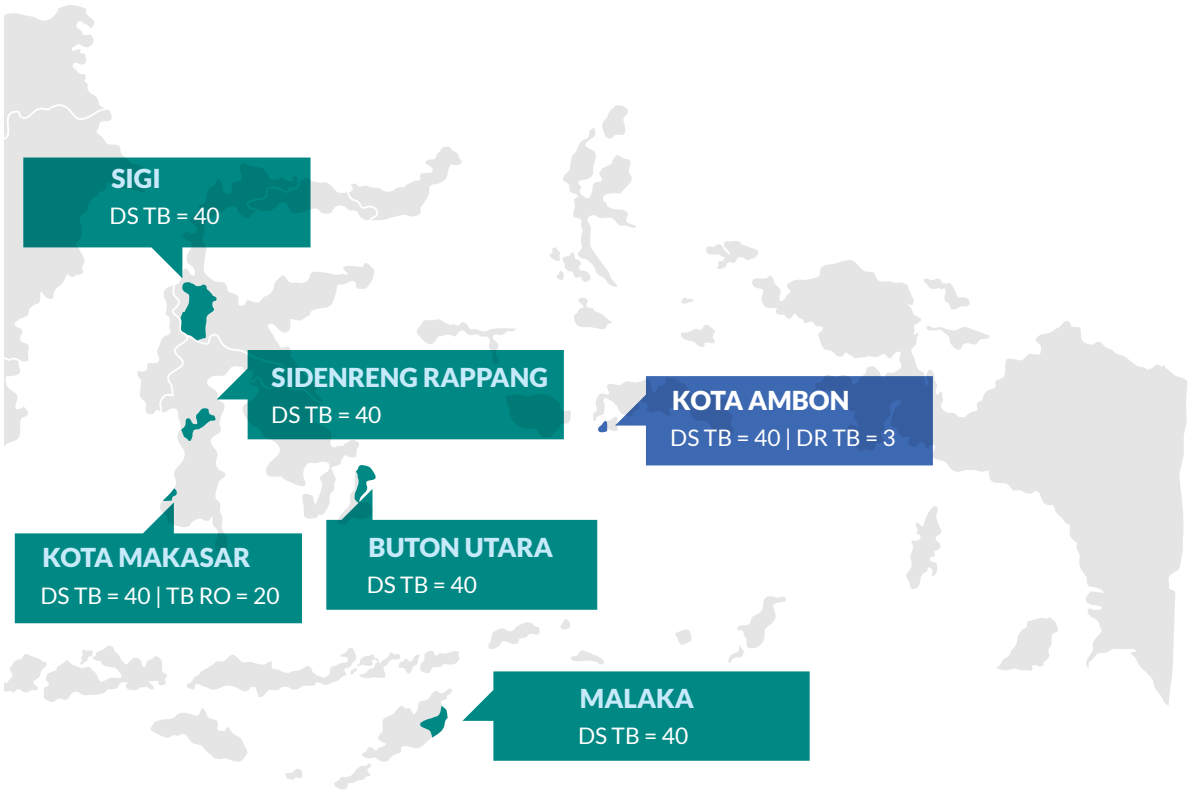
LEGEND

Total Respondent = 1449
DS TB = 990
DR TB = 178
Private = 281

COMPLETED

COMPLETED, No adequate sample

Period of report: up to 16 Februari 2021



Data Management

As mentioned above, data collectors used paper-based questionnaires during the interviews and then entered the data into the electronic one after being validated by field coordinators. Then, they submitted the electronic questionnaire to the server. The data manager checked the data daily to ensure the completeness and accuracy of the questionnaire.

To ensure the confidentiality of the data, only the data manager who had access to the database could see, manage and change the data upon confirmation with the data collector related to the change. At the same time, the other research team members, including the data analyst, were only given access to the anonymized dataset. The data was also stored on a hard disk, and personal computer and only the data manager was allowed to access the data.

The electronic questionnaire was deactivated once data collection was completed to prevent any data submitted to the server. In addition, the username and password were deleted from the server so that the data collectors would not be able to access the data any longer.

Preparation for Data Analysis

An anonymized dataset was exported from the survey database. Three Excel files (*.xlsx) were generated by the data manager:

1. form_01_Kriteria_Eligibilitas_-_all_versions_-_False_-_20210525.
   A dataset that consists of a list of all registered patients with TB at the selected health facilities. The dataset was used to identify eligible TB patients for recruitment in the survey.
2. Form_02._Lembar_Persetujuan_-_all_versions_-_False_20210525.
   A dataset that recorded data on signed informed consent forms from the study participants
3. form_03_wawancara_untuk_bagian_3_4_dan_5_-_all_versions_false_20210525. A dataset of interview results with the recruited TB patients. It consists of socio-demographic data (age, gender, education level, income and job status), cost incurred, time spent for care-seeking practice before TB diagnosis and during TB treatment.

Before the datasets were analysed, the data manager performed data checking and validation, using Stata 16.0 (StataCorp) provided by the WHO. Here are the steps:

1. Renamed and assigned labels for all variables. Formatted, translated, and re-coded the variables, such as date and respondents who answered others (do-file: 01_TBPCS_convert).
2. Cleaning. The aim of this step was to guide the data cleaning process, enable the survey team to walk through key steps in assuring data quality, and generate outlier data that need to be rechecked from the hardcopy. There are some common checks that have been done (do-file: 02_TBPCS_cleaning):
    a. Checking the duplicate records,
    b. Checking the eligibility who have not been in the current phase for at least 2 weeks, extremes values for variables with ratio scale,
    c. Checking if any record has a treatment start date older than 2 years from the interview
    d. Cleared outlier values that more than 168 hours per week
    e. identified those records outside the protocol's limits and replaced treatment durations with the protocol.
    f. Analysed respondents who answered income more than 10 million rupiah
3. Variable generation and imputation of missing data (do-file: 03_TBPCS_vargeneration).

    Variable generation including:
    a. income: total by household and individual income
    b. time: a total of hours and minutes.
    c. Cost for DOTS, travel and food.

    The assumptions for imputation:
    a. Estimation of household incomes. The survey used the following methods to estimate income/ living standards for TB-affected households:

        Measure 1: Reported income before diagnosis and at the time of interview.

        Measure 2: "Permanent" income estimated from assets owned.

        The reason for collecting two income measures is to allow the results to be compared using the different income measures and to choose

the most solid one by considering existing literature, other national household surveys and the quality of data obtained by this survey. Therefore, the method perceived as more robust for this survey will be used as the primary approach and the others in sensitivity analyses (also potentially used for imputation of missing values). Also, if there is no household income information, we used household assets-based prediction.

b. We used minimum wage to generate hourly wages[1] for the human capital approach if no information on income.

c. Long care seeking is defined as more than 4 weeks.

d. Used the total cost information, if it is larger than the sum of the medical and non-medical amounts.

e. Estimating frequency of DOTS visits for continuation phase for patients in intensive: Current frequency (int) + NTP protocol (cont)

f. Estimating time loss for all ambulatory care visits by multiplying the time and number of visits

g. Estimating medical and non-medical care costs by multiplying the cost and number of visits.

h. Since treat duration is in months and the amount reported per week, we assumed 4.33 weeks per month.

4. Extrapolation (do-file: 04_TBPCS_imputation). The plan was to scale up each patient's resources utilization in the current treatment phase based on reported usage. In accordance with the WHO methodology, only one interview was administered per patient at a single point during the disease episode. For patients interviewed during their intensive phase of treatment, the costs and time-loss before diagnosis and during the current phase were collected by interview. The costs and time-loss for their continuation phase were imputed by extrapolating the median values reported by the other patients in the survey. Similarly, for the patients interviewed during their continuation phase, the costs and time-loss for the pre-diagnosis and intensive phase were imputed. This process was carried out for patients with DS-TB and DR-TB separately as their values are likely to be significantly different and more similar within each group.

1 https://idcloudhost.com/daftar-upah-minimum-regional-umr-seluruh-kota-dan-provinsi-di-indonesia/

Indirect costs were estimated using two alternative methods: 1) Output approach: self-reported household income loss, net of social security payments (that is the net effect of income change before, as compared to during the TB episode), and 2) Human capital approach: a total period of absence in hours multiplied by the hourly wage rate of the absent worker. Therefore, there were two definitions of catastrophic we used in this study: output-based and human capital approach:

a. Output-based approach, which involves income loss

$$\frac{Household\ income\ (pre-TB)\ -\ Household\ income\ (Post-TB)\ +\ Direct\ costs}{Annual\ House\ Hold\ income\ (Pre-TB)}$$

In addition, we estimated the catastrophic with the inclusion of social protection by NTP (in voucher per month received) reduces the catastrophic effects in all respondents and only respondents who received the NTP subsidy to DS-TB 69 out of 990 (7%) and DR-TB 118 out of 178 (66%).

$$\frac{\begin{array}{c}(Household\ income\ (pre-TB)-\ Household\ income\ (Post-TB)+\ Direct\ costs)\\ -\ (Vouchers\ per\ month\ \times\ duration\ of\ TB\ treatment)\end{array}}{Annual\ House\ Hold\ income\ (Pre-TB)}$$

b. Human capital approach, which involves utilizing an hourly wage for each respondent.

$$\frac{Indirect\ Costs\ +\ Direct\ costs}{Annual\ House\ Hold\ income\ (Pre-TB)}$$

Each household was given a binary value for whether or not it incurred catastrophic total costs due to TB, as defined by the 20% threshold of annual income. The percentage of TB-affected households who incurred catastrophic total costs will be calculated as the main outcome of interest of the survey, DR-TB status.

We converted local currency (IDR) to USD, by rates of exchange during the data collection period[2] . The average between 1 October 2020 to 1 December 2020 was 14,506.66667

2 https://treasury.un.org/operationalrates/OperationalRates.php

The incidence of impoverishment (poverty headcount ratio) among the TB-affected households were calculated using the internationally defined poverty line for "extreme poverty" at the US $ 1.90 (at purchasing power parity in 2011) before and after the illness. The value threshold was compared to the USD rate exchange during the data collection period. Since we did not collect household size, we used assumptions of household numbers in the province.

$$Poverty\ threshold\ month\ = 1.9\ \times 30.41 \times household\ size$$

5. After all of the necessary variables were generated, basic descriptive statistics and cross-tabulations were present the patient population, the use of health care, the tuberculosis management model (place of treatment, number of visits, etc.), demographic data (age, gender, etc.) as well as information on TB treatment (for example, status for drug resistance, treatment phase, diagnostic delay). In this step, we identify the distributions, outliers and inconsistencies (do-file: 05_TBPCS_tables_figures).
6. Creating weight variables and saving files into the public and private sector separately (do-file: 06_TBPCS_svy). Adjustment for sampling design is needed in order to: (a) take into account intra-cluster correlations; (b) address under or over-recruitment in particular clusters; and (c) calculate national estimates for various outcome measures including the percentage of TB-affected households incurring catastrophic costs. Weight was calculated for each observation if an equal sampling probability is not ensured due to under or over recruitment in clusters. The district was used as the primary sampling unit in the survey. We create weight variable weight For example, if a cluster only enrolled 20 patients, failing to enroll 25 patients as per protocol, the weight value will be 1.25. This mean that the individual observations in this cluster will have 1.25 times of weight so that 20 patients can represent effectively 25 patients. A national estimate of the main outcome measurement was calculated by taking into account inter- cluster correlations, sampling weight and stratified sampling.

$$weight = \frac{n\ protocol}{n\ actual}$$

We also use additional weight weight2 for DS-TB and DR-TB:

$$weight2 = \frac{proportion_{\ i}\ of\ case\ notification\ from\ global\ TB\ database}{proportion_{\ i}\ in\ sample}$$

$$proportion\ i\ in\ sample = \frac{number\ of\ respondents\ i}{Total\ respondents}$$

where *i* is DR-TB or DS-TB

There were four dataset generated for analysis both private, public; and in IDR, USD:

a. TBPCS_IDN_imputed_svy_public_ONLY
b. TBPCS_IDN_imputed_svy_public_ONLY_IDR
c. TBPCS_IDN_imputed_svy_private_ONLY
d. TBPCS_IDN_imputed_svy_private_ONLY_IDR

Data Analysis

Data analysis was performed using R. There are four main script files:

1. 0_auxilliary_functions.R. The script generates functions, including data selection, demographic tables, and other tables.
2. 1_new_script tables.R. We summarized the survey results using arithmetic mean or median. The script produces tables, including:
    a. Demographic and clinical table
    b. Primary income earner and poverty rate.
    c. Coping mechanism. The study aims to assess the strategy that TB-affected households use to cope with the economic burden of the disease, such as taking a loan or selling household assets. In addition, the survey assessed the social consequences of TB episodes such as losing loss, social exclusion, divorce, and child drop-out from education. These were useful additional indicators to capture as policymakers may more easily understand them than the concept of catastrophic cost.
    d. Total cost: both output-based and human capital approach. The magnitude and main drivers of patient costs were described according to the main cost categories (direct medical, direct non-medical and indirect costs) and presented by drug-resistance status (for the public sector).
    e. Facility visit and time lost
    f. Risk factor of catastrophic. A logistics regression was used to identify the risk factors of catastrophic costs. We used a backward LR stepwise approach for the multivariable analysis.
3. 2_new_script_figures.R. The script produces figures, including:
    a. Total cost
    b. The proportion of total cost by medical, non-medical and income loss
    c. The proportion of households facing catastrophic
    d. Sensitivity analysis of catastrophic events with different thresholds. The 20% threshold can be altered in sensitivity analyses so that the proportion of patients facing catastrophic costs can be assessed at different thresholds.

e. Risk factor

f. Riverplot of employment stat

4. 3_new_script_table_pval. The script produces p-value in tables (only for public)

All raw results will be imported into TBPCS_IDN_summary_output_v7.xls.

Ethics Approval

All eligible participants agreed to participate in this survey and provided written informed consent. The consent was provided by their guardians for children 18 years and below. The study protocol was approved by the Medical and Health Research Ethics Committee (MHREC) of Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Indonesia (reference: KE/FK/0596/EC/2020). All participants were provided with a token of gratitude for their time with IDR 50,000 (USD 3.5) equivalent.

CHAPTERS 4
RESULTS

Results from public sector

1. Socio-demographic and clinical characteristics

Table 4. Socio-demographic characteristics of study participants

	DS-TB patients		DR-TB patient		All TB patients		p-value
	N	(%)	N	(%)	N	(%)	
Total	**990**		**178**		**1,168**		
Demographic characteristics							
Sex							
Female	418	42	64	36	482	41	0.090
Male	572	58	114	64	686	59	
Age group							
0–14	57	6	3	2	60	5	0.103
15–24	175	18	26	15	201	17	
25–34	172	17	41	23	213	18	
35–44	167	17	37	21	204	17	
45–54	183	18	36	20	219	19	
55–64	150	15	28	16	178	15	
≥65	86	9	7	4	93	8	
Education level							
No education	60	6	0	0	60	5	0.236
Pre/Primary school	260	26	37	21	297	25	
Secondary school or above	670	68	141	79	811	69	

	DS-TB patients		DR-TB patient		All TB patients		p-value
	N	(%)	N	(%)	N	(%)	
Insurance status*							
With insurance	805	81	167	94	972	83	0.002
No insurance	185	19	11	6	196	17	
Household Income Quintiles							
Fifth (highest)	141	37	14	21	178	15	0.359
Fourth	220	28	22	16	248	21	
Third	197	40	20	22	237	20	
Second	206	36	21	20	242	21	
First (lowest)	226	37	23	21	263	23	

**Insurance included national social insurance (JKN) and private insurance*

A total of 1,168 TB patients (990 drug-sensitive and 178 patients with DR-TB) were recruited in the survey (Table 4). Approximately 60% of the participants were men. There were no significant gender differences between drug-sensitive and patients with DR-TB. Most of the patients were at their productive age (71% age 15-54 years). Approximately 70% of all patients had an education in secondary school or above. However, the patients with DR-TB had significantly higher education levels. More than 80% of all patients with TB reported having insurance schemes. The proportion of patients with insurance was significantly higher among patients with DR-TB.

Table 5. Clinical characteristics of study participants

	DS-TB patients		DR-TB patients		All TB patients		p-value
	N	(%)	N	(%)	N	(%)	
Total	**990**		**178**		**1,168**		
Clinical characteristics							
Treatment phase							
Intensive phase	258	26	44	25	866	26	0.918
Continuation phase	732	74	134	75	74	74	
Treatment category							
New	889	90	74	42	963	83	<0.001
Relapse	62	6	59	33	121	10	
Retreatment	39	4	45	25	84	7	
HIV status							
Negative	696	70	152	85	848	72	0.045
Positive	17	2	3	2	20	2	
Unknown	277	28	23	13	300	26	
Type of TB							
Bacteriologically confirmed pulmonary TB	751	76	163	92	914	78	0.076
Clinically diagnosed pulmonary TB	177	18	8	4	185	16	
Extrapulmonary TB	62	6	7	4	69	6	
Diagnostic delay (>4weeks) *	**55**	**78**	**19**	**43**	**74**	**25**	**0.033**
Modality of TB treatment							

	DS-TB patients		DR-TB patients		All TB patients		p-value
	N	(%)	N	(%)	N	(%)	
Self-administered	241	24	25	14	266	23	0.089
With treatment observer	749	76	153	86	902	77	
Hospitalized (current phase)	**127**	**13**	**71**	**40**	**198**	**17**	**<0.001**
Body mass index							
<18.5	456	46	69	39	525	45	0.102
≥18.5	534	54	109	61	643	55	

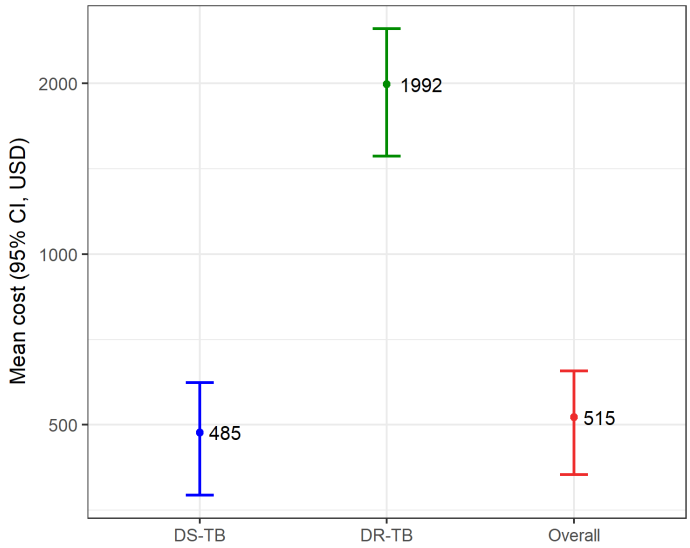
**Information for the diagnostic delay was collected only from patients who were in intensive phase at the time of interview*

Table 5 describes the clinical characteristics of the participants. Three-quarters of DS-TB samples in our study were in the treatment continuation phase. HIV test results reported that approximately two-thirds of DS-TB had not performed HIV tests, with 2% of patients with TB reported HIV positive status. There were still 18% of DS-TB diagnosed clinically. About a quarter of patients with DS-TB did self-administered treatment.

The majority of the patients with DR-TB are relapse and retreatment ones (58%). Diagnostic delay hampers about half of the patients with DR-TB. It is because the diagnosis of DR-TB takes time, up to 1 month. There are still 14% of patients with DR-TB receiving treatment without direct observation. The proportion of DR-TB with hospitalization in the current treatment phase is doubled compared to DS-TB.

2. The cost incurred for TB treatment

Figure 7. The total cost incurred per Tuberculosis-affected household in the period of treatment



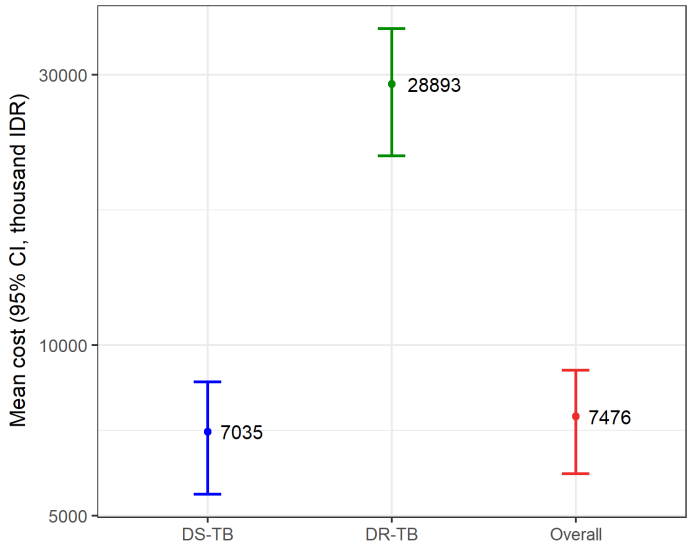
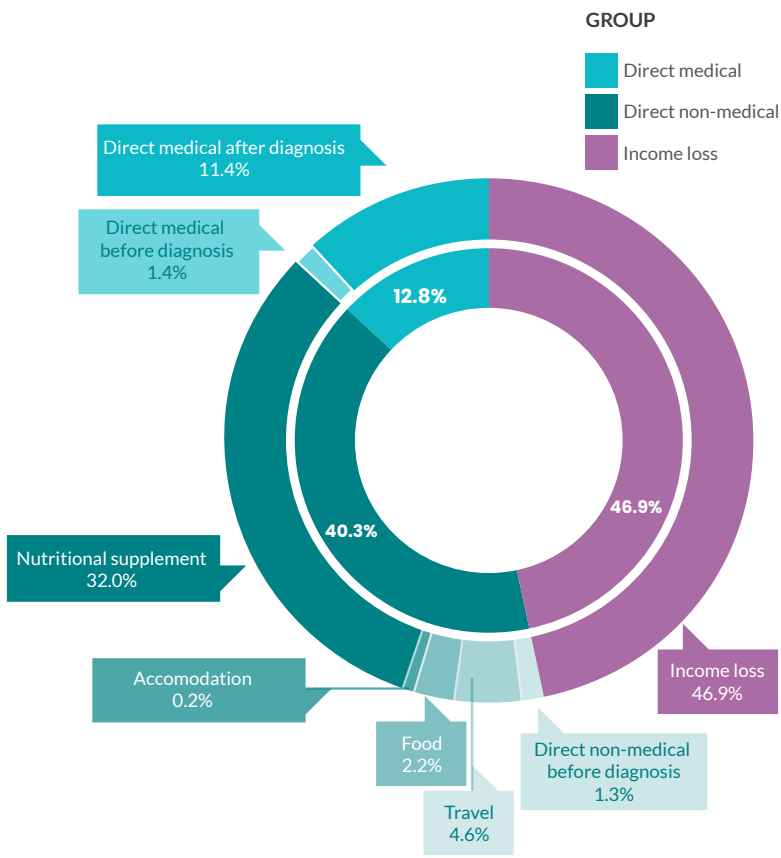


Figure 7 shows the cost incurred by TB affected households for TB treatment both for US dollar (USD) and Indonesian rupiah (IDR). The average cost incurred by all TB patients was USD 515 (IDR 7.5 million). However, the drug-resistance TB patients had markedly higher expenditure compared to their drug-sensitive counterparts (USD 1,992 vs USD 485; IDR 28.9 vs IDR 7 million).

Figure 8. Distribution of total costs by cost category



Income loss (46.9%) accounted for the highest proportion of total costs incurred by households (Figure 8). The direct non-medical cost came second with 40.3% of the household expenditure, mainly used to buy nutritional supplements. Of the 12.8% cost incurred for the direct medical cost, 11.4% was spent after TB diagnosis was established.

Table 6. a. Detail of costs incurred per TB-affected households (USD) in period of treatment

TB patient costs, USD			DS-TB			
			Mean	(95% CI)	Median	(IQR)
Pre-TB diagnosis	Direct medical costs		7.3	(2.7-11.9)	0.1	(0.1-0.1)
	Direct non-medical costs		6.5	(5.2-7.7)	4.2	(4.2-4.2)
	Total direct costs		13.7	(8.6-18.9)	4.2	(4.2-4.2)
Post-TB diagnosis	Direct medical costs	DOT visit	0.2	(0-0.4)	0.0	(0-0)
		Follow-up	30.1	(10.4-49.9)	0.3	(0.2-1.3)
		Hospitalization	25.2	(0-55)	0.0	(0-0)
	Direct non-medical costs	Travel	17.0	(12.9-21.1)	8.1	(1.6-17.5)
		Accommodation	1.2	(0.7-1.6)	0.1	(0-0.5)
		Food	9.5	(6.6-12.5)	0.0	(0-0)
		Nutrition supplement	153.5	(116.8-190.2)	53.7	(0-179.1)
Total direct medical costs			62.8	(25.3-100.3)	0.4	(0.3-15.6)
Total direct non-medical costs			187.6	(150.8-224.5)	86.1	(20-228.7)
Income loss			234.5	(136.8-332.3)	0.0	(0-193)
Total cost (output approach)			485.0	(376.1-593.9)	216.0	(57.2-551.8)
Indirect cost			91.3	(63.2-119.3)	7.8	(0-70.6)
Total cost (human capital approach)			**341.7**	**(277.6-405.8)**	**155.5**	**(57.3-365.2)**

DR-TB				All TB patients			
Mean	(95% CI)	Median	(IQR)	Mean	(95% CI)	Median	(IQR)
6.8	(2.2-11.3)	1.3	(1.3-1.3)	7.3	(2.8-11.8)	0.1	(0.1-0.1)
11.2	(5.4-16.9)	4.2	(4.2-4.2)	6.5	(5.3-7.8)	4.2	(4.2-4.2)
17.9	(8.2-27.6)	5.4	(5.4-5.4)	13.8	(8.7-18.9)	4.2	(4.2-4.2)
10.4	(0-31.4)	0.0	(0-0)	0.4	(0-0.8)	0.0	(0-0)
190.9	(53.6-328.2)	1.0	(0.5-7.1)	33.4	(13.9-52.9)	0.3	(0.2-1.5)
4.6	(0.3-8.8)	0.0	(0-0)	24.8	(0-54)	0.0	(0-0)
341.5	(138.3-544.6)	106.6	(31-312.6)	23.5	(18.3-28.7)	8.2	(2-18.6)
4.6	(2.7-8)	1.6	(0.2-3.5)	1.2	(0.8-1.7)	0.1	(0-1.4)
93.8	(15.1-172.5)	27.8	(0-57.9)	11.2	(8-14.4)	0.0	(0-18.8)
730.2	(461.4-998.9)	403.0	(80.7-895.5)	165.2	(128.8-201.5)	53.7	(0-184.3)
212.6	(77.8-347.4)	2.5	(1.7-80.4)	65.8	(29-102.6)	0.5	(0.3-15.8)
1,181.9	(783.4-1580.4)	675.0	(278-1377.4)	207.7	(171.2-244.2)	91.6	(20.8-243)
597.2	(439.4-755)	0.0	(0-427.8)	241.9	(146-337.7)	0	(0-197.8)
1,991.7	(1488-2495.4)	1,051.6	(526.9-2461.5)	515.4	(408.5-622.2)	222.3	(58.1-572.9)
456.1	(251.3-660.9)	17.9	(0-316.1)	98.6	(70.8-126.5)	7.9	(0-71.4)
1,850.6	**(1317.4-2383.7)**	**950.3**	**(418.1-1943.4)**	**372.1**	**(308.9-435.4)**	**161.1**	**(59.4-377.9)**

Table 6. b. Detail of cost incurred per TB-affected households (IDR) in period of treatment

TB patient costs, thousand IDR			DS-TB			
			Mean	(95% CI)	Median	(IQR)
Pre-TB diagnosis	Direct medical costs		105.7	(39.5-172)	1.0	(1-1)
	Direct non-medical costs		93.6	(75.9-111.4)	60.2	(60.2-60.2)
	Total direct costs		199.4	(124-274.7)	61.3	(61.3-61.3)
Post-TB diagnosis	Direct medical costs	DOT visit	2.5	(0-5.4)	0.0	(0-0)
		Follow-up	437.2	(150.2-724.3)	4.5	(2.2-19.5)
		Hospitalization	365.3	(0-797.6)	0.0	(0-0)
	Direct non-medical costs	Travel	246.3	(187.1-305.6)	117.6	(23.1-253.3)
		Accommodation	16.7	(9.7-23.8)	1.0	(0.4-6.7)
		Food	138.3	(95.2-181.3)	0.0	(0-0)
		Nutrition supplement	2,227.1	(1694.7-2759.6)	779.0	(0-2598)
Total direct medical costs			910.8	(367-1454.5)	6.4	(3.6-225.7)
Total direct non-medical costs			2,722.1	(2187.7-3256.5)	1,249.7	(290.3-3317.5)
Income loss			3,402.5	(1983.8-4821.2)	0.0	(0-2800)
Total cost (output approach)			7,035.4	(5455.8-8615.1)	3,133.3	(830.3-8004.3)
Indirect cost			1,324.0	(916.7-1731.3)	113.5	(0-1024.6)
Total cost (human capital approach)			**4,956.9**	**(4026.8-5887.1)**	**2,255.2**	**(831.7-5297.5)**

DR-TB				All TB patients			
Mean	(95% CI)	Median	(IQR)	Mean	(95% CI)	Median	(IQR)
97.9	(32.1-163.7)	18.3	(18.3-18.3)	105.6	(40.6-170.5)	1	(1-1)
162.0	(78.5-245.6)	60.2	(60.2-60.2)	95	(77.5-112.5)	60.2	(60.2-60.2)
260.0	(119.1-400.9)	78.5	(78.5-78.5)	200.6	(126.7-274.5)	61.3	(61.3-61.3)
151.0	(0-455.7)	0	(0-0)	5.5	(0-12.3)	0	(0-0)
2,769.1	(777.4-4760.8)	14.9	(6.8-102.6)	484.3	(201.2-767.4)	4.6	(2.2-21.3)
66.4	(4.8-127.9)	0	(0-0.2)	359.3	(0-782.8)	0	(0-0)
4,954.5	(2006.4-7900.5)	1,545.9	(449.2-4534.4)	341.3	(266-416.5)	119.4	(28.9-269.7)
77.2	(38.5-115.9)	22.8	(2.7-50.5)	18	(11-24.9)	1	(0.4-20)
1,360.3	(218.5-2502.2)	403.2	(0-839.4)	162.9	(116.3-209.5)	0	(0-272.7)
10,592.2	(6693.6-14490.8)	5,845.5	(1170.1-12990)	2,395.8	(1869.1-2922.6)	779.4	(0-2674.2)
3,084.3	(1128.4-5040.3)	35.5	(24.1-1167)	954.6	(420.8-1488.5)	6.6	(3.6-229.5)
17,145.3	(11363.8-22926.8)	9,792.6	(4032.8-19981.6)	3013	(2483.2-3542.8)	1,328.6	(301.4-3525.1)
8,663.2	(6374.5-10951.8)	0	(0-6206.2)	3,508.6	(2117.6-4899.6)	0	(0-2869.9)
28,893.8	(21585.5-36200.1)	15,255.2	(7644.2-35707.9)	7,476.2	(5925.7-9026.7)	3,225	(842.5-8311.1)
6,616.1	(3645-9587.2)	259.0	(0-4585)	1,430.8	(1026.5-1835)	114.7	(0-1035.9)
26,846.7	**(19111.4-34580)**	**13,786.1**	**(6065.6-28192.3)**	**5,398.4**	**(4480.8-6316)**	**2,336**	**(861.6-5482.4)**

Tables 6a and 6b describe the cost incurred by TB affected households in USD and IDR. The total cost incurred by TB patients can be calculated using two approaches. First, the output approach was estimated by calculating the direct cost and income lost (which is defined as the difference between income before and after diagnosis). Second, the human capital cost was estimated by calculating the direct and indirect costs. The average total household cost (output approach) was USD 515 (IDR 7.4 million).

Meanwhile, using the human capital approach, the total household cost was USD 372 (IDR 5.4 million). The highest cost component was either income lost for the output approach (USD 242; IDR 3.5 million) or direct non-medical cost for the human capital approach (USD 208; IDR 3 million) for all TB patients. The direct non-medical cost was predominantly allocated for nutritional supplements (USD 165; IDR 2.4 million). The direct medical cost was higher during TB treatment compared to the cost before diagnosis. A significant amount of the direct medical costs was allocated for follow up visits (USD 33; IDR 484 thousand) and hospitalization (USD 25; IDR 359.3 thousand).

The DR-TB patients had, on average, four times higher total cost incurred than the DS-TB patient's counterparts and experienced 2.5 times higher income loss and 6.3 times higher direct non-medical cost. The DR-TB patients spent more than USD 100 for nutritional supplements (USD 730; IDR 10.6 million), follow up visits (USD 191; IDR 2.8 million) and travel costs (USD 342; IDR 5.0 million), while the DS-TB patients only for nutritional supplements (USD 154; IDR 2.2 million). The costs incurred were not markedly different between DS-TB and DR-TB patients before diagnosis.

Table 7. Number of facility visits and hours lost

	DS-TB patient		DR-TB patient		All TB patients		p-value
	Number	(95% CI)	Number	(95% CI)	Number	(95% CI)	
Number of facility visits							
Pre-disease	2.6	(2-3.2)	2.9	(2-3.9)	2.6	(2-3.2)	0.556
Directly observed therapy	156.2	(143.5-168.9)	477.2	(390-564.3)	163.5	(150.9-176.1)	<0.001
Medical follow-up	11.4	(9.6-13.2)	48.6	(34.1-63.1)	12.2	(10.4-14)	<0.001
Total visit	130.4	(114.6-146.1)	458.5	(370.4-546.5)	137.0	(121.4-152.6)	<0.001
Hours lost by patient,							
Pre-disease	7.0	(3.5-10.5)	14.5	(0-30.2)	7.1	(3.7-10.6)	0.352
Hospitalization	2.7	(1.5-3.9)	34.3	(9.8-58.8)	3.3	(2.1-4.6)	0.013
Directly observed therapy	123.7	(78.6-168.9)	427.1	(151.4-702.8)	129.9	(85.2-174.5)	0.034
Medical follow-up	11.3	(8.4-14.2)	126.4	(53.1-199.8)	13.6	(10.3-16.9)	0.003
Total lost time	140.8	(94.5-187.2)	595.6	(284.7-906.4)	150.0	(104.1-195.9)	0.006
Hours lost by caregivers							
Hospitalization	17.6	(10.2-25)	76.9	(30.3-123.5)	21.2	(13.2-29.2)	0.017
Directly observed therapy	163.5	(107.3-219.6)	498.1	(157.9-838.3)	171.1	(115.8-226.4)	0.057
Medical follow-up	14.9	(12.3-17.5)	129.6	(54.1-205)	17.9	(14.6-21.1)	0.004
Total lost time	261.0	(169.5-352.4)	1,010.8	(428-1593.7)	276.1	(185.6-366.6)	0.014

The number of visits and the hours lost due to different types of visits are described in Table 7. All patients with TB had 137 visits (95% CI: 121-152) on average, with most of the facility visits were for DOT visits for both the drug-sensitive and the DR-TB patients (156 and 477 consecutively). However, the total facility visits for the patients with DR-TB were 3.5 higher than the patients with DS-TB. The DOT and the medical follow-up visits were also 3.1 and 4.3 higher consecutively for the patients with DR-TB. These visits' differences were statistically significant.

The average number of patients' total lost time was 150 hours (95 CI: 104.1-195.9). The majority of the lost time was due to DOT visits followed by follow up visits for both DS-TB and DR-TB patients. The hours lost for hospitalization, DOT, medical follow-up, and overall lost time were significantly higher for patients with DR-TB than patients with DS-TB. Similar findings were reported from the hours lost experienced by the caregivers.

Table 8. Coping mechanisms adopted by Tuberculosis-affected households

	DS-TB patients		DR-TB patient		All TB patients		p-value
	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Coping mechanisms							
Dissaving	18.3	(13.4-24.5)	42.7	(30.8-55.4)	18.8	(13.9-24.8)	<0.001
Loan	14.6	(11.2-18.9)	41.7	(31.3-52.9)	15.2	(11.8-19.4)	<0.001
Sales of assets	8.0	(6-10.5)	28.1	(20.6-37.1)	8.4	(6.5-10.8)	<0.001
Any of above	32.0	(26-38.5)	71.4	(57.7-82)	32.8	(26.9-39.2)	<0.001

	DS-TB patients		DR-TB patient		All TB patients		p-value
	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Social support							
Vouchers from NTP	6.8	(2.1-19.9)	66.1	(45.5-82)	8.0	(3-19.7)	<0.001
Social assistance	32.1	(25.5-39.5)	48	(35.8-60.5)	32.4	(25.9-39.6)	0.027

There were several ways for patients with TB to cope with the TB related expenditures, e.g. cashing out their savings, taking loans and selling their assets. Most of the patients had a combination of coping strategies (32.8%). However, more patients with DR-TB were required to take some actions to cope with the financial situation, and the differences were significant. More than double patients with DR-TB need to take a combination of strategies to cope with TB expenditures compared to their patients with DS-TB' counterparts (71.4% vs 32%).

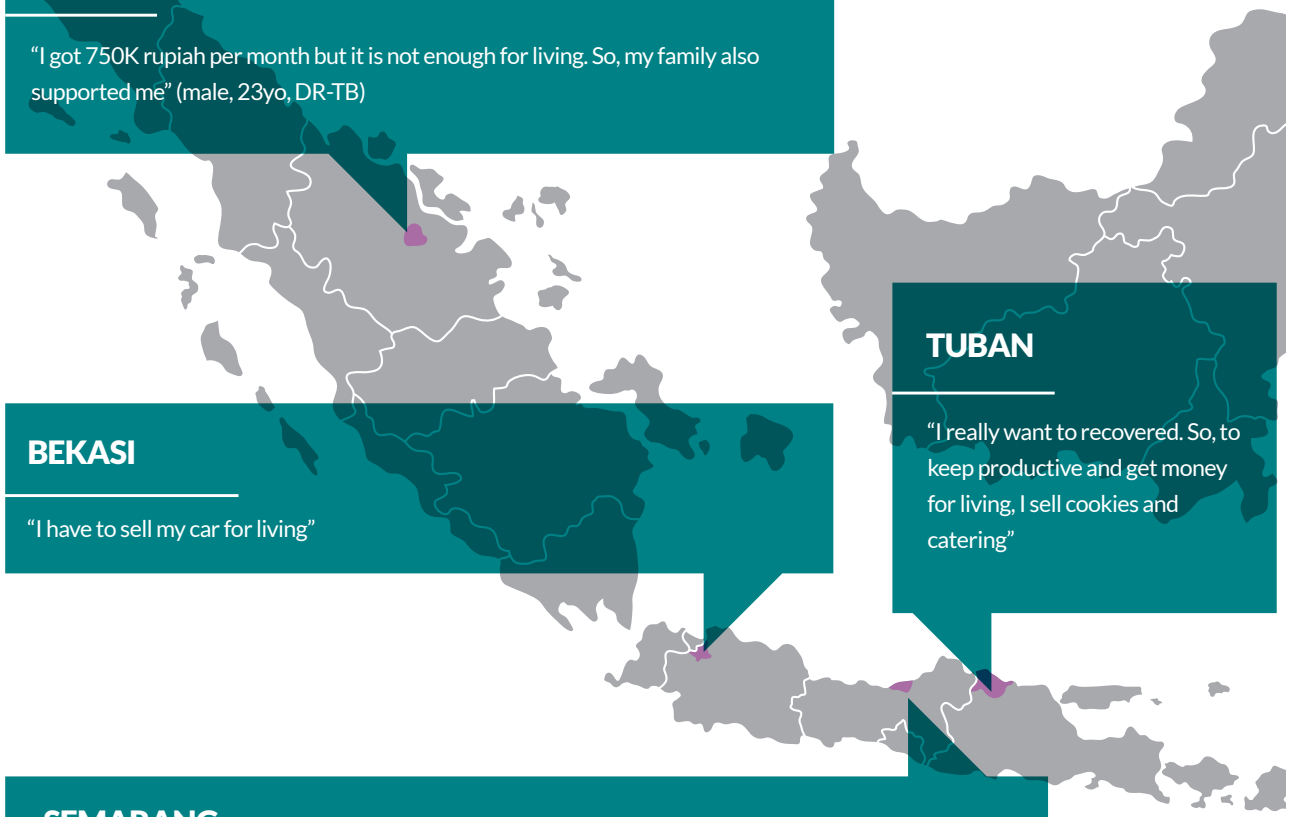
While some TB patients received support from NTP or other government social supports (mainly due to the current pandemic), the coverage was relatively small. The NTP supports only 8% of all patients with TB.

COPING MECHANISM

PAKANBARU

"I have to borrow money from my family to re-activate my BPJS" (female, 32yo)

"I got 750K rupiah per month but it is not enough for living. So, my family also supported me" (male, 23yo, DR-TB)



TUBAN

"I really want to recovered. So, to keep productive and get money for living, I sell cookies and catering"

BEKASI

"I have to sell my car for living"

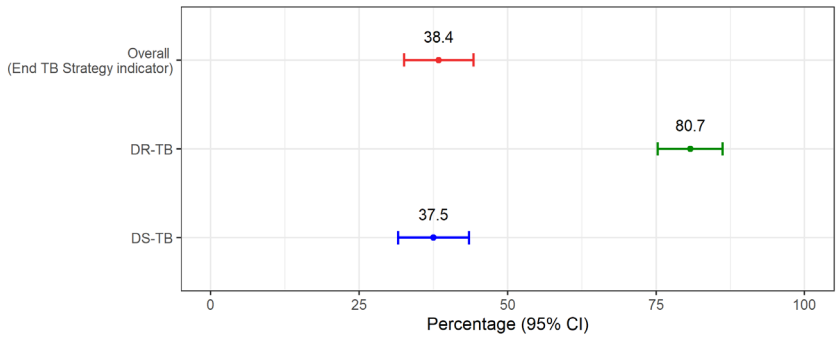
SEMARANG

"I got extra-pulmonary TB and had to do surgery on my neck. Since I didn't pay the BPJS fee regularly, I had to borrow money from a bank to pay the BPJS so my surgery could be covered by the BPJS"


AMBON
"During the DR-TB treatment, my parents spent 25 million rupiah for travel, food, rent a boarding house, and our daily needs. We got the money from selling our crops, loan, and my father's saving" (male, 29yo, DR-TB)
"After my son undertaking treatment for two months, I worked to renovate a house without being paid. In return, we could stay in that house and the owner also lent us a car for going to the hospital"
"I owe money and my husband worked anything as long we could pay the treatment for our child"
SIDENRENG RAPPANG
"I have to use all my saving for living since I got TB
"I borrowed money from my relatives to cover our daily needs"
NORTH BUTON
"I had to sell my carpentry tools for living since I got TB and my wife also work an odd job"

3. Household catastrophic cost

Figure 9. a. Percentage of TB-affected households facing catastrophic costs



Overall, 38.4% of patients with TB face catastrophic costs, while four households experienced catastrophic costs for every five patients with DR-TB. The percentage of catastrophic cost is more than double for patients with DR-TB compared to patients with DS-TB.

Figure 9. b. Percentage of TB-affected households facing catastrophic costs (with NTP social protection)

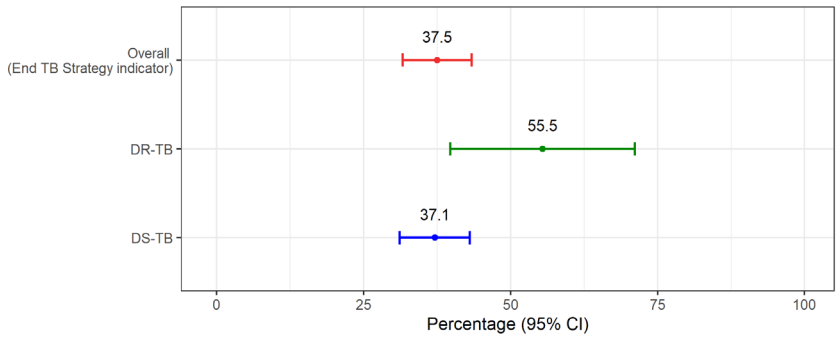


Figure 9.b. shows that the social protection provided by NTP only has a marginal effect on catastrophic costs for DS-TB patients (0.4% from 37.5% to 37.1%). On the other hand, the NTP social protection has significantly reduced the catastrophic cost among the patients with DR-TB (from 80.7% to 55.5%). However, the proportion of households experiencing catastrophic costs after social protection is still considerably high.

Figure 9. c. Percentage of TB-affected households facing catastrophic costs (NTP beneficiaries)

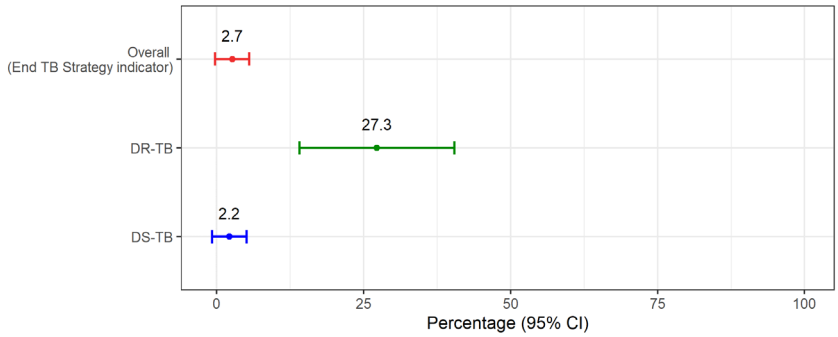


Figure 9.c. shows that among patients with TB who received social protection from NTP, only 2.7% were of those who experienced catastrophic costs. Most of those who experienced catastrophic costs among NTP social protection recipients, 27.3% were patients with DR-TB, and only 2.2 were patients with DS-TB. The small proportion of households experiencing catastrophic costs among those who received the NTP social protection clearly explains why the NTP social protection had a marginal effect on reducing catastrophic costs among patients with TB.

Figure 10. The ratio of TB expenditure to income by household income quintile

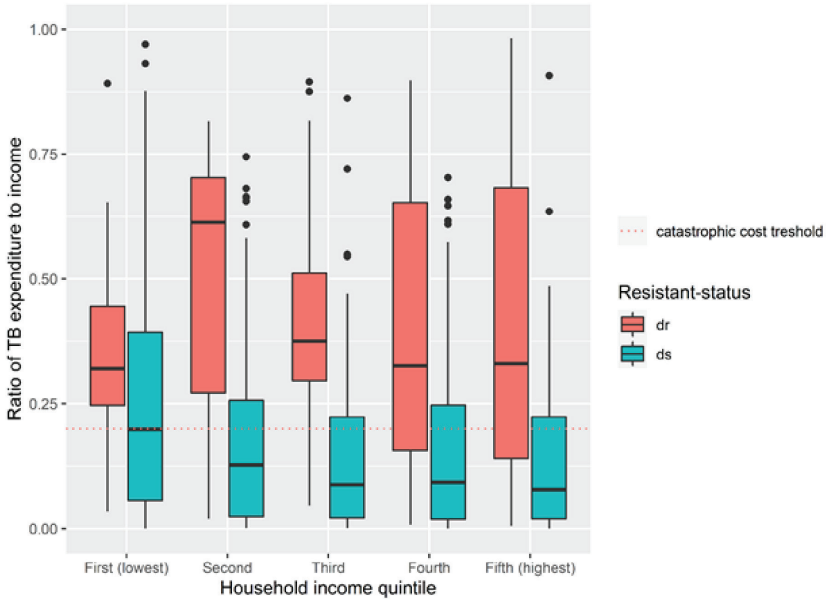


Figure 10. shows the distribution of the median TB expenditure to income ratio that is higher than 20% (catastrophic cost threshold) in different household quintiles. Most if not all of the patients with DR-TB' households in different quintiles experienced catastrophic costs. Among patients with DS-TB, the catastrophic costs were more prevalent in the lowest quintile. However , there were households who experienced catastrophic cost in each of the quintiles.

Figure 11. Sensitivity analysis for the catastrophic costs faced by TB-affected households

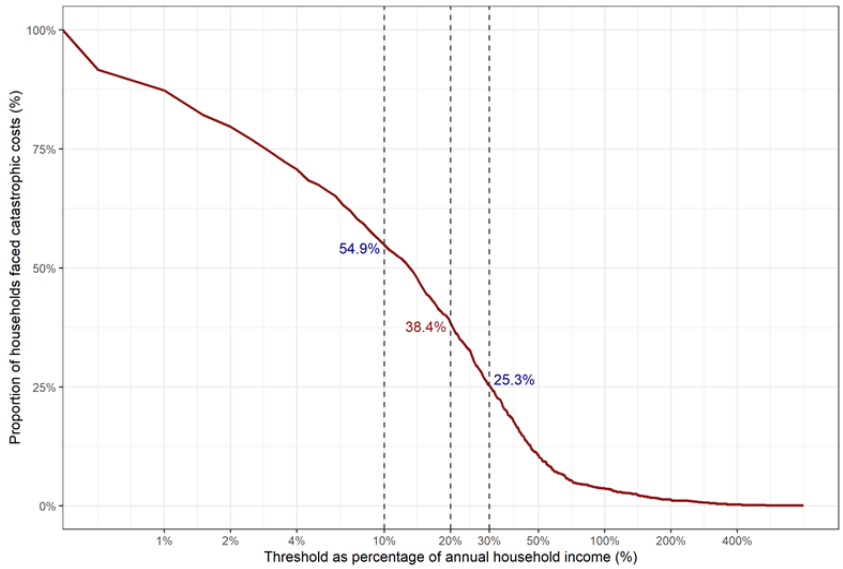
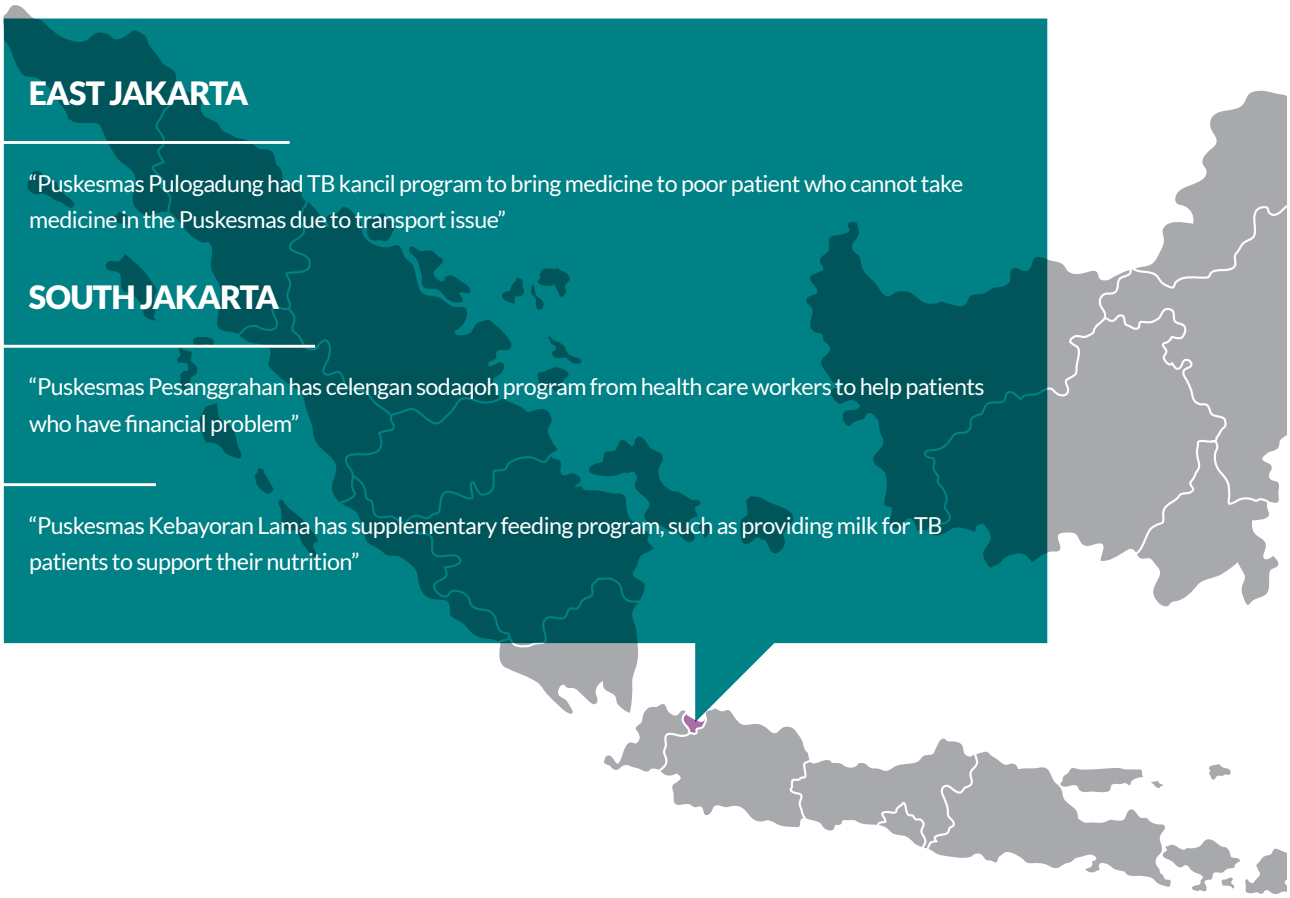


Figure 11 illustrates the proportion of households that faced TB catastrophic cost with different threshold levels. Using the current definition of catastrophic cost (i.e. when the TB related cost is more than 20% of household income, the prevalence of catastrophic cost is 38.4%. Considering the 10% threshold, more than 50% of TB-affected households face catastrophic costs. However, when the 30% threshold was used, the prevalence of catastrophic cost was still 25%.

FINANCIAL SUPPORT FROM GOVT/SOCIETY



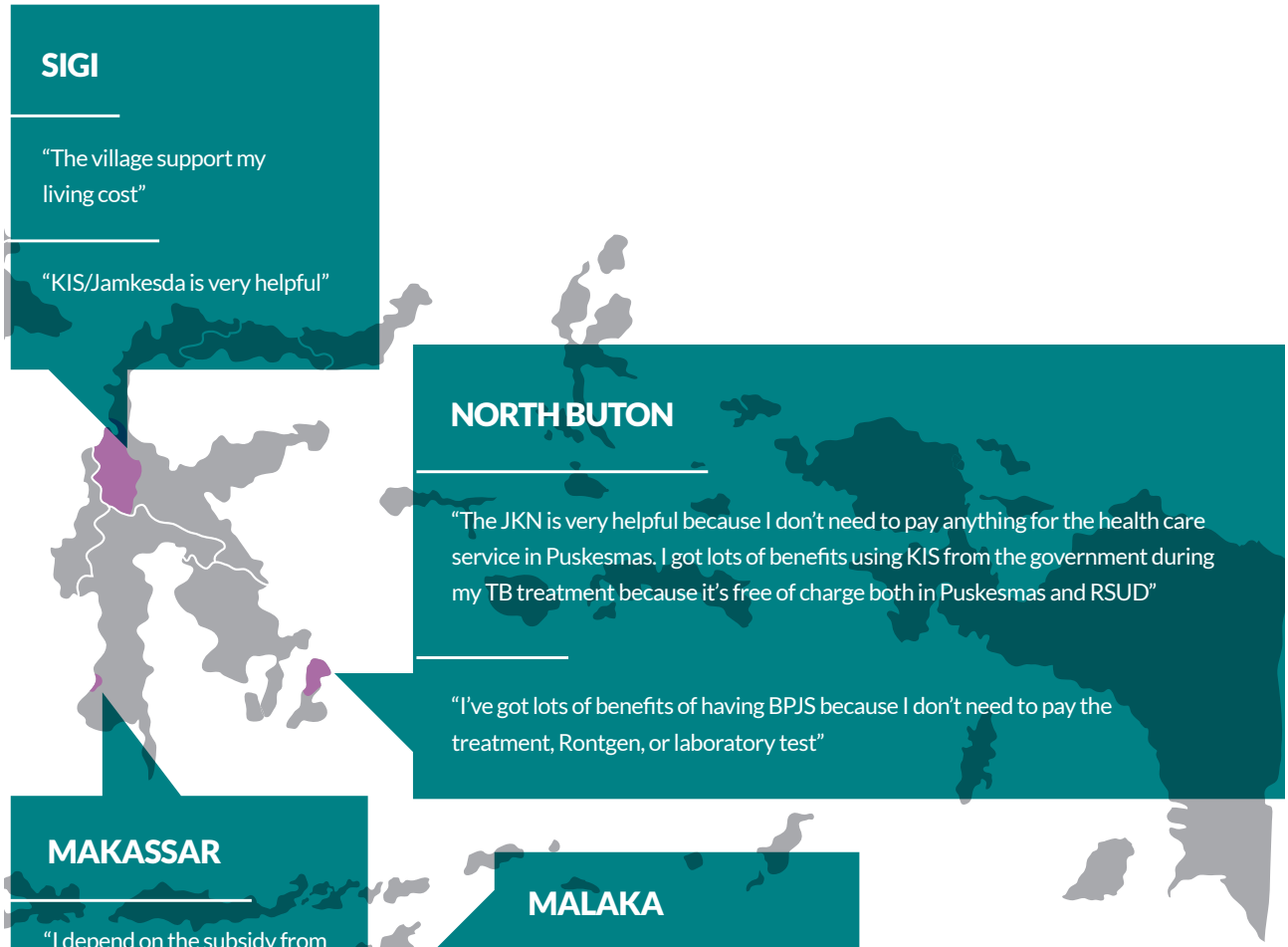
EAST JAKARTA

"Puskesmas Pulogadung had TB kancil program to bring medicine to poor patient who cannot take medicine in the Puskesmas due to transport issue"

SOUTH JAKARTA

"Puskesmas Pesanggrahan has celengan sodaqoh program from health care workers to help patients who have financial problem"

"Puskesmas Kebayoran Lama has supplementary feeding program, such as providing milk for TB patients to support their nutrition"



SIGI

"The village support my living cost"

"KIS/Jamkesda is very helpful"

NORTH BUTON

"The JKN is very helpful because I don't need to pay anything for the health care service in Puskesmas. I got lots of benefits using KIS from the government during my TB treatment because it's free of charge both in Puskesmas and RSUD"

"I've got lots of benefits of having BPJS because I don't need to pay the treatment, Rontgen, or laboratory test"

MAKASSAR

"I depend on the subsidy from my children and neighbors for living. I have BPJS KIS and it is very helpful for my TB treatment. The health care provider also provides support to me"

MALAKA

"TB treatment is free for all patients even though they have no KIS/BPJS. I only need to show my ID card to the health facility"

Figure 12. Distribution of the number of the TB patients' households facing catastrophic costs

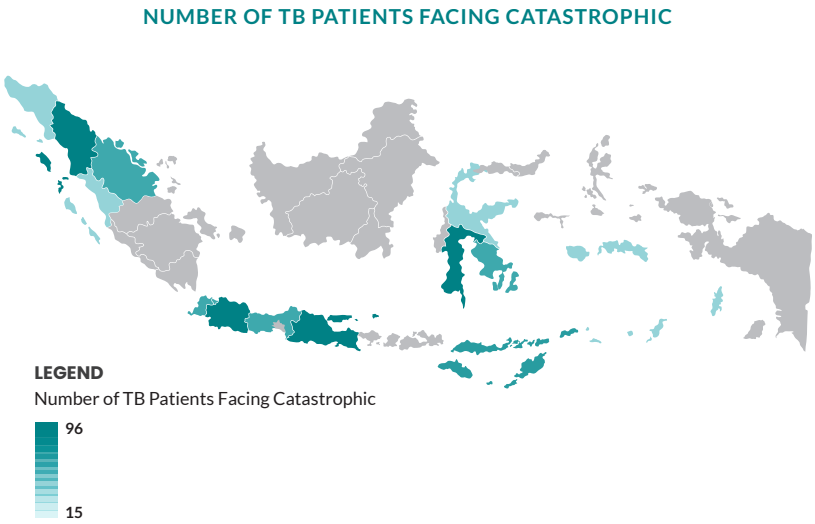
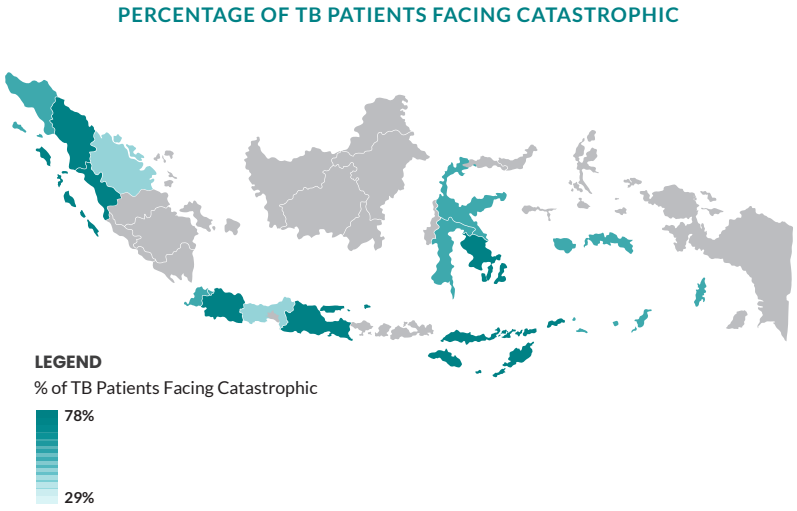


Figure 13. Distribution of the proportion of the TB patients' households facing catastrophic costs



Figures 13 and 14 show the spatial distribution of TB patient's households that are facing catastrophic costs. Of the three regions in Indonesia represented in the survey (i.e. Java-Bali, Sumatra and Eastern part of Indonesia), Java had the most significant number of households that experienced catastrophic costs. However, the Eastern part of Indonesia had a proportionately more significant number of households with catastrophic costs, particularly among populations in small islands such as East Nusa Tenggara.

Table 9. Socio-demographic characteristics of study participants, facing catastrophic

	Drug-sensitive TB patients		Drug-resistant TB patients		All TB patients		p-value
	N	(%)	N	(%)	N	(%)	
Total	**370**		**144**		**514**		
Demographic characteristics							
Sex							
Female	147	40	54	38	201	39	0.624
Male	223	60	90	62	313	61	
Age group							
0–14	19	5	1	1	20	4	0.102
15–24	60	16	21	15	81	16	
25–34	65	18	31	22	96	19	
35–44	65	18	31	22	96	19	
45–54	67	18	31	22	98	19	
55–64	59	16	23	16	82	16	
≥65	35	9	6	4	41	8	
Education level							
No education	31	8	0	0	31	6	0.225
Pre/Primary school	103	28	32	22	135	26	
Secondary school or above	236	64	112	78	348	68	
Insurance status							
With insurance	296	80	133	92	429	83	0.008
No insurance	74	20	11	8	85	17	
Primary income earner							
No	199	54	91	63	290	56	0.208
Yes	171	46	53	37	224	44	
Region							
Eastern Indonesia	107	29	17	12	124	24	0.504
Java-Bali	183	49	100	69	283	55	
Sumatera	80	22	27	19	107	21	

Table 9 shows that all TB patients who experienced catastrophic costs were not significantly different in almost all socio-demographic variables and between DS-TB and DR-TB patients. Among these patients, the majority had insurance (80% and 92% for DS-TB and DR-TB patients, respectively). Only insurance status had a significant difference between DS-TB and DR-TB patients.

Table 10. Clinical characteristics of study participants, facing catastrophic

Clinical characteristics	Drug-sensitive TB patients		Drug-resistant TB patients		All TB Patients		p-value
	N	(%)	N	(%)	N	(%)	
Treatment phase							
Intensive phase	102	28	40	28	142	28	0.900
Continuation phase	268	72	104	72	372	72	
Treatment category							
New	331	90	59	41	390	76	<0.001
Relapse	23	6	47	33	70	14	
Retreatment	16	4	38	26	54	10	
HIV status							
Negative	253	68	123	85	376	73	0.035
Positive	7	2	3	2	10	2	
Unknown	110	30	18	13	128	25	
Type of TB							
Bacteriologically confirmed pulmonary TB	288	78	132	92	420	82	0.192
Clinically diagnosed pulmonary TB	59	16	8	5	67	13	
Extrapulmonary TB	23	6	4	3	27	5	
Diagnostic delay (>4weeks) *	**23**	**23**	**16**	**40**	**39**	**28**	**0.059**
Modality of TB treatment							
Self-administered	70	19	23	16	93	18	0.686
With treatment observer	300	81	121	84	421	82	
Hospitalized (current phase)	**78**	**21**	**61**	**42**	**139**	**27**	**0.012**
Body mass index							
<18.5	177	48	59	41	236	46	0.239
≥18.5	193	52	85	59	278	54	

**Information for the diagnostic delay was collected only from patients who were in intensive phase at the time of interview*

Table 10 shows most of the patients with TB (both for DS-TB and DR-TB) who experienced catastrophic costs were new TB patients (76%) in the continuation phase (72%). Meanwhile, more than half of the patients with DR-TB (59%) who experienced catastrophic cost were retreatment and relapsed patients with TB. Approximately 80% were bacteriologically confirmed TB with negative HIV status (73%).

Tables 11.a. and 11.b. below describe the cost incurred by households face catastrophic costs due to TB. The average household catastrophic cost (output approach) was USD 1,062 (IDR 15.4 million). Meanwhile, using the human capital approach, the total household cost was USD 621 (IDR 9.0 million). The highest cost component was either income lost for the output approach (USD 564.1; IDR 8.2 million) or direct non-medical cost for the human capital approach (USD 359.6; IDR 5.2 million) for all TB patients. The direct non-medical cost was predominantly allocated for nutritional supplements (USD 289.9; IDR 4.2 million). The direct medical cost was higher during TB treatment compared to the cost before diagnosis. A significant amount of the direct medical costs was allocated for follow up visits (USD 64.1; IDR 929.2 thousand) and hospitalization (USD 61.8; IDR 895.8 thousand).

The highest cost component for DR-TB patients was direct non-medical cost (USD 1,368; IDR 18.8 million), followed by the income lost (USD 739; IDR 10.7 million). The highest component for the direct non-medical cost was the nutritional supplements (USD 834; IDR 12.1 million) and travel (USD 404; IDR 5.9 million). The highest cost component for direct medical cost was the follow-up visit (USD 226; IDR 3.3 million). On the other hand, the highest cost component for DS-TB patients was the income loss (USD 556; IDR 8.1 million), followed by direct non-medical cost (USD 315; IDR 4.6 million). The nutritional supplement (USD 266; IDR 3.9 million) was also the highest cost component for direct non-medical cost among DS-TB patients.

The DR-TB patients had on average 2.3 times higher total cost incurred compared to the DS-TB patient's counterparts (USD 2,359 vs 1,005; IDR 34.2 vs 14.5 million), experienced 1.3 times higher income loss (USD 739 vs 556; IDR 10.7 vs 8.1 million) and 4.3 times higher direct non-medical cost ((USD 1,368 vs 315; IDR 19,8 vs 4,6 million).

Table 11. a. Detail of cost incurred per Tuberculosis-affected households, facing catastrophic (USD) in period of treatment

TB patient costs, USD			DS-TB			
			Mean	(95% CI)	Median	(IQR)
Pre-TB diagnosis	Direct medical costs		12.6	(1.6-23.7)	0.1	(0.1-0.1)
	Direct non-medical costs		7.5	(5.8-9.1)	4.2	(4.2-4.2)
	Total direct costs		20.1	(7.9-32.3)	4.2	(4.2-4.2)
Post-TB diagnosis	Direct medical costs	Directly observed therapy	0.3	(0-0.8)	0.0	(0-0)
		Follow-up	56.9	(17.5-96.3)	0.4	(0.2-8.2)
		Hospitalization	64.2	(0-141.4)	0.0	(0-0)
	Direct non-medical costs	Travel	23.0	(15.9-30.2)	9.5	(2.4-23.4)
		Accommodation	1.9	(0.9-2.9)	0.1	(0-1.4)
		Food	16.7	(10.8-22.7)	0.0	(0-18.8)
		Nutrition supplement	265.8	(186-345.6)	138.0	(0-322.2)
Total direct medical costs			134.1	(45.5-222.6)	0.6	(0.3-42.4)
Total direct non-medical costs			314.9	(236.3-393.5)	183.4	(69.2-366.4)
Income loss			556.4	(294.2-818.6)	206.8	(0-661.8)
Total cost (output approach)			1,005.4	(739.3-1271.4)	663.4	(339.8-1105.9)
Total indirect costs			107.1	(65.7-148.5)	20.0	(0-92.3)
Total cost (human capital approach)			556.1	(442.2-670)	290.7	(141.2-599.5)

DR-TB				All TB patients			
Mean	(95% CI)	Median	(IQR)	Mean	(95% CI)	Median	(IQR)
8.0	(2.6-13.3)	1.3	(1.3-1.3)	12.4	(1.8-23)	0.1	(0.1-0.1)
12.7	(5.8-19.5)	4.2	(4.2-4.2)	7.7	(6-9.3)	4.2	(4.2-4.2)
20.6	(9.2-32.1)	5.4	(5.4-5.4)	20.1	(8.4-31.8)	4.2	(4.2-4.2)
12.9	(0-39)	0	(0-0)	0.9	(0-2.1)	0	(0-0)
226.3	(55.6-397)	1.2	(0.5-73.1)	64.1	(25.8-102.3)	0.4	(0.2-8.4)
5.5	(0.4-10.6)	0	(0-0)	61.8	(0-135.7)	0	(0-0)
403.9	(158.8-648.9)	136.2	(44.5-346)	39.2	(28-50.4)	10.1	(3.3-25.7)
6.1	(2.8-9.5)	1.6	(0.2-3.5)	2.1	(1.1-3.1)	0.1	(0-1.5)
111.2	(12.3-210)	27.8	(0-58.9)	20.7	(14-27.4)	0	(0-18.8)
833.7	(494.3-1173.1)	507.4	(119.4-1074.5)	289.9	(212.1-367.7)	152.2	(0.1-351)
252.6	(85.6-419.7)	3.9	(1.7-126.1)	139.1	(54.1-224)	0.7	(0.3-46.5)
1,367.5	(866.9-1868.2)	794.3	(376-1574.4)	359.6	(282.1-437.1)	190.8	(71-395.7)
738.8	(568.5-909.1)	0.0	(0-827.2)	564.1	(312.7-815.5)	206.8	(0-661.8)
2,358.9	(1749.8-2968.1)	1,387.0	(787.2-2716.3)	1,062.8	(806-1319.6)	672.2	(349.5-1183.5)
455.1	(189.5-720.8)	14.7	(0-331.4)	121.9	(80-163.8)	20.0	(0-96.4)
2,075.3	**(1407.4-2743.2)**	**1,068.0**	**(561-2332.7)**	**620.5**	**(509-732.1)**	**304.2**	**(146.2-649.4)**

Table 11. b. Detail of cost incurred per Tuberculosis-affected households, facing catastrophic (IDR) in period of treatment

TB patient costs, thousand IDR			DS-TB			
			Mean	(95% CI)	Median	(IQR)
Pre-TB diagnosis	Direct medical costs		183.0	(22.5-343.5)	1.0	(1-1)
	Direct non-medical costs		108.3	(83.9-132.6)	60.2	(60.2-60.2)
	Total direct costs		291.3	(114.5-468.1)	61.3	(61.3-61.3)
Post-TB diagnosis	Direct medical costs	Directly observed therapy	4.7	(0-11.4)	0.0	(0-0)
		Follow-up	825.0	(253.3-1396.7)	5.3	(2.6-119)
		Hospitalization	932.0	(0-2051.7)	0.0	(0-0.2)
	Direct non-medical costs	Travel	334.2	(230.4-438)	138.3	(34.6-340.1)
		Accommodation	27.5	(12.7-42.3)	1.1	(0.4-21)
		Food	242.9	(156.9-328.9)	0.0	(0-272.7)
		Nutrition supplement	3,855.9	(2698.7-5013.2)	2,001.7	(0-4674.4)
Total direct medical costs			1,944.6	(659.6-3229.7)	8.3	(3.6-614.8)
Total direct non-medical costs			4,568.8	(3428.6-5709)	2,660.7	(1004.6-5314.6)
Income loss			8,071.4	(4268.2-11874.6)	3,000.0	(0-9600)
Total cost (output approach)			14,584.9	(10725.4-18444.3)	9,624.0	(4929.9-16042.9)
Total indirect costs			1,554.1	(953.6-2154.5)	290.4	(0-1338.6)
Total cost (human capital approach)			**8,067.5**	**(6415.4-9719.6)**	**4,217.5**	**(2047.7-8697.1)**

DR-TB				All TB patients			
Mean	(95% CI)	Median	(IQR)	Mean	(95% CI)	Median	(IQR)
115.7	(38.1-193.4)	18.3	(18.3-18.3)	180.2	(26.4-333.9)	1.0	(1-1)
183.7	(84.2-283.1)	60.2	(60.2-60.2)	111.5	(87.8-135.2)	60.2	(60.2-60.2)
299.4	(133.2-465.6)	78.5	(78.5-78.5)	291.6	(122.2-461.1)	61.3	(61.3-61.3)
187.0	(0-565.3)	0.0	(0-0)	12.4	(0-29.9)	0.0	(0-0)
3,282.9	(807.1-5758.8)	17.6	(7.5-1059.9)	929.2	(374.8-1483.7)	5.6	(2.6-122.5)
79.4	(5.4-153.4)	0.2	(0-0.2)	895.8	(0-1968.9)	0.0	(0-0.2)
5,858.6	(2304.3-9412.9)	1,976.5	(645.3-5019.3)	568.4	(406.1-730.7)	147	(48.2-373.3)
89.1	(40.7-137.5)	23.3	(2.9-50.6)	30.1	(15.7-44.5)	1.2	(0.4-21.1)
1,612.4	(177.8-3047.1)	403.2	(0-854.7)	301	(203.8-398.2)	0.0	(0-272.7)
12,094.7	(7171.1-17018.3)	7,361.0	(1732-15588)	4,205.3	(3076.2-5334.4)	2,208.3	(1.5-5091.7)
3,665.1	(1241.8-6088.4)	56.0	(24.8-1828.8)	2,017.6	(785.2-3250)	9.8	(3.6-675)
19,838.4	(12575.4-27101.5)	11,522.2	(5454.4-22839.6)	5,216.3	(4091.8-6340.8)	2,767.5	(1030.4-5740.2)
10,716.9	(8246.4-13187.3)	0.0	(0-12000)	8,183.6	(4536.9-11830.3)	3000.0	(0-9600)
34,220.4	(25384-43056.8)	20,120.5	(11419.1-39405.1)	15,418	(11691.7-19143.2)	9,750.9	(5069.9-17168.1)
6,602.6	(2749-10456.2)	213.7	(0-4808.1)	1,768.1	(1160.1-2376.2)	290.4	(0-1398.8)
30,106.1	**(20417.1-39795.2)**	**15,493.5**	**(8137.7-33839.2)**	**9,002.0**	**(7384.3-10619.7)**	**4,413.3**	**(2121.6-9420.7)**

CATASTROPHIC COST

PAKANBARU

"I don't need to pay the medicine (TB) because it is free from Puskesmas. But I spent more money to buy food, vitamin, milk, and other energy drink. This made me attempted to borrow money from online application" (male, single, 28yo, TB-HIV)

"I feel I am getting poorer and my productivity also decreased because I didn't work since I got TB. All my daily expenses are covered by my brother and parents. I also borrow money (500K IDR) to my family for my treatment" (male, single, 23yo, DR-TB)

"I used to work at oil palm plantation. Due to my physical condition, I didn't work there any longer. No, I work as a construction labour with uncertain income. I am the bread winner and there are 5 family members including my mother in-law in this house. My wife has to work as a laundry worker in our neighbor to support our family" (male, 47yo)

EAST JAKARTA

"I stopped taking medicine in Batam because the medicine was run of stock in the private hospital I enrolled. Then I was referred to RS Persahabatan. I quit from job and moved to Jakarta. Now I am unemployed and my siblings and parents cover my living cost"

SEMARANG

"I got extra-pulmonary TB and had to do surgery. Since I didn't pay the BPJS premi regularly, I had to borrow money from a bank to pay the BPJS to get the benefit. After the surgery, I still have to visit and take medicine to the hospital routinely. Not only medical cost, but I have to spend more on travel cost" (female, 36 yo)

"We need to ride vehicle to go to hospital and I have to sell rice to cover the transport cost. His parents have divorced, so I have to look after him. I used to work in a factory, but I have to quit to take care of my grandson" (grandma of 9 yo boy with TB-HIV) yo)

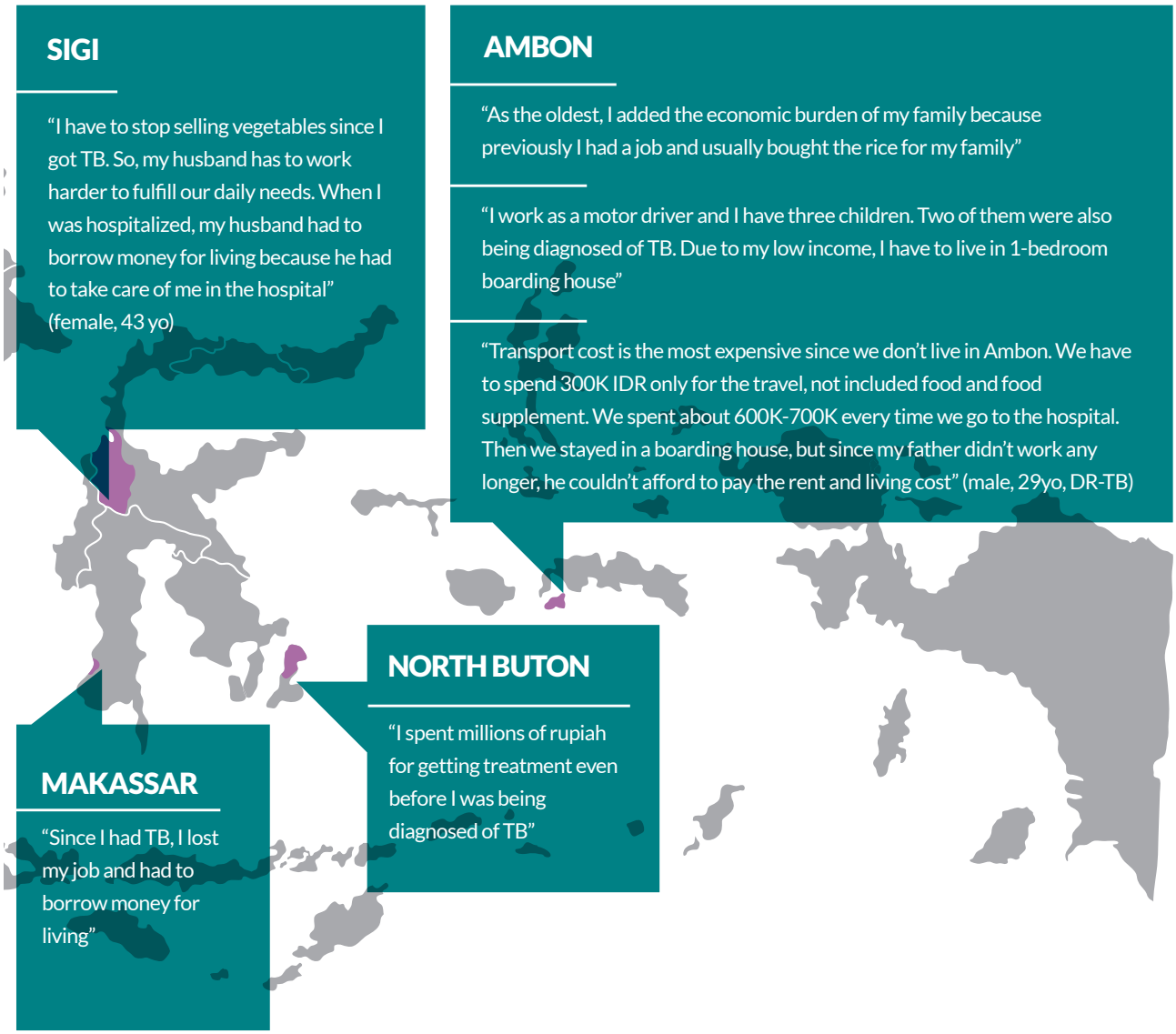

SIGI
"I have to stop selling vegetables since I got TB. So, my husband has to work harder to fulfill our daily needs. When I was hospitalized, my husband had to borrow money for living because he had to take care of me in the hospital" (female, 43 yo)
AMBON
"As the oldest, I added the economic burden of my family because previously I had a job and usually bought the rice for my family"
"I work as a motor driver and I have three children. Two of them were also being diagnosed of TB. Due to my low income, I have to live in 1-bedroom boarding house"
"Transport cost is the most expensive since we don't live in Ambon. We have to spend 300K IDR only for the travel, not included food and food supplement. We spent about 600K-700K every time we go to the hospital. Then we stayed in a boarding house, but since my father didn't work any longer, he couldn't afford to pay the rent and living cost" (male, 29yo, DR-TB)
NORTH BUTON
"I spent millions of rupiah for getting treatment even before I was being diagnosed of TB"
MAKASSAR
"Since I had TB, I lost my job and had to borrow money for living"

Table 12. Risk factors for catastrophic costs due to Tuberculosis

Risk factors		Univariate analysis			Multivariate analysis		
		Crude OR	95% CI	p-value	Adjusted OR	95% CI	p-value
Age group (year)	0-14	Ref	-	-	-	-	-
	15-24	1.07	(0.57-2)	0.8	-	-	-
	25-34	1.27	(0.75-2.13)	0.4	-	-	-
	35-44	1.26	(0.65-2.46)	0.5	-	-	-
	45-54	1.19	(0.68-2.08)	0.5	-	-	-
	55-64	1.32	(0.73-2.38)	0.3	-	-	-
	65+	1.35	(0.64-2.83)	0.4	-	-	-
Sex	Female	Ref	-	-	Ref	-	-
	Male	1.2	(0.83-1.74)	0.3	1.1	(0.7-1.72)	0.6
Drug resistance status	TB (first line treatment)	Ref	-	-	Ref	-	-
	DR-TB	6.98	(4.53-10.8)	<0.001	6.23	(3.81-10.2)	<0.001*
Type of TB	Extrapulmonary TB	Ref	-	-	Ref	-	-
	Bacteriologically confirmed pulmonary TB	1.07	(0.6-1.9)	0.8	1.07	(0.55-2.09)	0.8
	Clinically diagnosed pulmonary TB	0.82	(0.42-1.59)	0.5	0.84	(0.41-1.7)	0.6
DM status	Positive	Ref	-	-	-	-	-
	Negative	0.99	(0.65-1.5)	>0.9	-	-	-

Risk factors		Univariate analysis			Multivariate analysis		
		Crude OR	95% CI	p-value	Adjusted OR	95% CI	p-value
	Don't know	1.05	(0.67-1.66)	0.8	-	-	-
HIV status	Negative	Ref	-	-	Ref	-	-
	Positive	1.13	(0.75-1.68)	0.5	1.17	(0.74-1.84)	0.5
	Unknown	1.1	(0.29-4.24)	0.9	1	(0.19-5.24)	>0.9
Employment status before TB	Formal sector	Ref	-	-	Ref	-	-
	Informal sector	1.15	(0.72-1.83)	0.5	0.97	(0.61-1.52)	0.9
	Retired	0.38	(0.08-1.85)	0.2	0.45	(0.07-3.01)	0.4
	Not working	0.75	(0.51-1.12)	0.2	0.61	(0.35-1.06)	0.072
Education level	Secondary school or above	Ref	-	-	Ref	-	-
	Pre/Primary school	1.18	(0.89-1.57)	0.2	0.94	(0.71-1.24)	0.6
	No education	1.84	(0.78-4.34)	0.2	1.44	(0.6-3.45)	0.4
Insurance status	With insurance	Ref	-	-	Ref	-	-
	No insurance	1.1	(0.75-1.63)	0.6	1.24	(0.84-1.83)	0.2
Household quintile	Fifth (highest)	Ref	-	-	Ref	-	-
	Fourth	1.33	(0.79-2.23)	0.3	1.65	(0.99-2.76)	0.054
	Third	1.23	(0.68-2.25)	0.5	1.58	(0.83-3.01)	0.14
	Second	1.86	(0.92-3.75)	0.082	2.37	(1.1-5.1)	0.031*

Risk factors		Univariate analysis			Multivariate analysis		
		Crude OR	95% CI	p-value	Adjusted OR	95% CI	p-value
	First (lowest)	3.18	(1.63-6.21)	0.001	4.32	(2.09-8.91)	0.001*
Treatment support	Self-administered	Ref	-	-	Ref	-	-
	With treatment observer	1.65	(1.18-2.31)	0.004	1.61	(1.1-2.37)	0.020*
Primary income earner	No	Ref	-	-	Ref	-	-
	Yes	1.45	(1.12-1.88)	0.006	1.19	(0.77-1.82)	0.4
Current hospitalization	Currently not hospitalized	Ref	-	-	Ref	-	-
	Currently hospitalized	3.21	(2.13-4.85)	<0.001	3.48	(2.25-5.37)	<0.001*
Body mass index	<18.5	Ref	-	-	Ref	-	-
	≥18.5	0.91	(0.68-1.22)	0.5	1.03	(0.75-1.4)	0.9
Financial impact	Not changed	Ref	-	-	-	-	-
	Richer/wealthier	0	(0-0)	<0.001	-	-	-
	Poorer	3.03	(2.04-4.49)	<0.001	-	-	-
	Much poorer	3.68	(2.14-6.33)	<0.001	-	-	-

* Significant risk factors remained in the multivariable analysis with $p < 0.05$

Univariate analysis revealed that risk factors for the TB catastrophic cost are: being DR-TB, has the lowest quintile of economic status, having a treatment observer, being a primary income earner, and being hospitalized. Further multivariable analysis identified four risk factors of TB catastrophic cost, i.e., low economic status, patients with DR-TB, being hospitalized and having treatment observers.

4. Socio-economic impact of Tuberculosis

Table 13. Socio-economic impact of Tuberculosis to TB-affected households

	DS-TB patients		DR-TB patient		All TB patients		p-value
	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Social consequences							
Food insecurity	10.3	(5.6-18.2)	13.3	(7.1-23.6)	10.4	(5.7-18)	0.547
Divorce/ separation	0.5	(0.2-1.2)	NA	(NA-NA)	0.5	(0.2-1.2)	0.696
Job loss	13.8	(9.9-19)	33.2	(21.3-47.7)	14.2	(10.4-19.2)	0.002
Interrupted schooling	0.3	(0.1-0.9)	0.6	(0.1-4.1)	0.3	(0.1-0.9)	0.590
Social exclusion	5.8	(2.8-11.5)	9.4	(4.2-19.4)	5.9	(2.9-11.4)	0.353
Productivity loss	36.4	(29.1-44.3)	55.6	(35-74.5)	36.7	(29.6-44.6)	0.081
Any of above	57.8	(50.9-64.4)	83.7	(73.5-90.4)	58.3	(51.6-64.8)	<0.001
Perceived financial impact							
Richer	0.1	(0-0.7)	NA	(NA-NA)	0.1	(0-0.7)	0.021
Not changed	52.7	(46-59.3)	24.9	(17.3-34.6)	52.1	(45.6-58.6)	
Poorer	38.8	(34.2-43.6)	62.4	(51.5-73.2)	39.2	(34.7-43.9)	
Much poorer	8.5	(4.9-14.1)	12.7	(6.8-22.5)	8.6	(5.1-14.1)	

TB has different social impacts. More than half of TB patients face social consequences, either had productivity or job losses. However more than half of the patients experienced more than one social impact (58%), and this was more obvious for DR-TB patients (83.7%). Slightly more than half of all patients with TB reported that their financial status did not change due to TB, but this was not the case for patients with DR-TB. Only a quarter of patients with DR-TB reported the financial situation did not change. Meanwhile, 62.4% and 12.7% of these patients reported to become poorer and much poorer due to their disease.

Figure 14. Changes in employment status before and during Tuberculosis episode

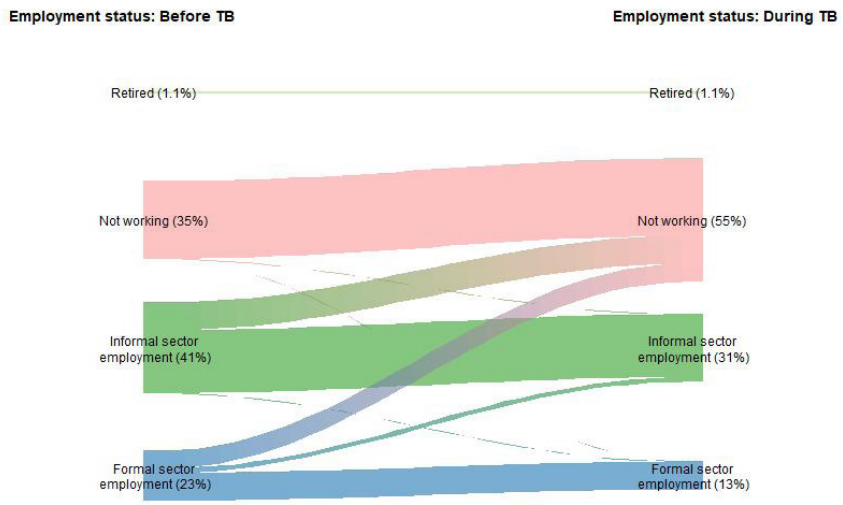


Figure 14 illustrates the differences in employment status due to TB. Approximately 60% of the patients with TB worked before they were diagnosed, and around 35% were unemployed. However, many patients with TB in informal and formal sectors lose their jobs or change their employment status (10% reduction in both informal and formal sectors) after receiving TB diagnosis. As a result, there was a more than 50% increase in unemployment due to TB.

Table 14. a. Self-reported monthly income and poverty level in USD

in USD	DS-TB patients		DR-TB patient		All TB patients		p-value
	Mean	(95% CI)	Mean	(95% CI)	Mean	(95% CI)	
Self-reported monthly Income (in USD): before the onset of TB symptoms, mean (95% CI)							
Individual patient	161.8	(138.7-184.8)	221.5	(153.4-289.5)	162.8	(140.2-185.5)	0.101
Household	221.4	(195.8-246.9)	264.4	(201.1-327.8)	222.2	(197.1-247.3)	0.209
Self-reported monthly income (in USD): at the interview, mean (95% CI)							
Individual patient	144.1	(122-166.3)	206.7	(113.5-299.9)	145.0	(123.2-166.8)	0.193
Household	193.5	(169.3-217.6)	204.1	(140.3-267.8)	193.6	(169.9-217.4)	0.753
The patient was the primary income earner before the onset of TB symptoms, percentage (95% CI)							
No	60.1	(56-64.2)	63.1	(54.1-72)	60.1	(56.1-64.2)	0.068
Yes	39.9	(35.8-44)	36.9	(28-45.9)	39.9	(35.8-43.9)	
Impoverishment: TB-affected households below the poverty line, percentage (95% CI)							
Before the onset of TB symptoms	64.1	(58.3-69.9)	59.1	(50.4-67.9)	64.0	(58.3-69.7)	0.581
At the interview	67.3	(62.3-72.3)	58.7	(47.8-69.6)	67.2	(62.2-72.1)	0.269

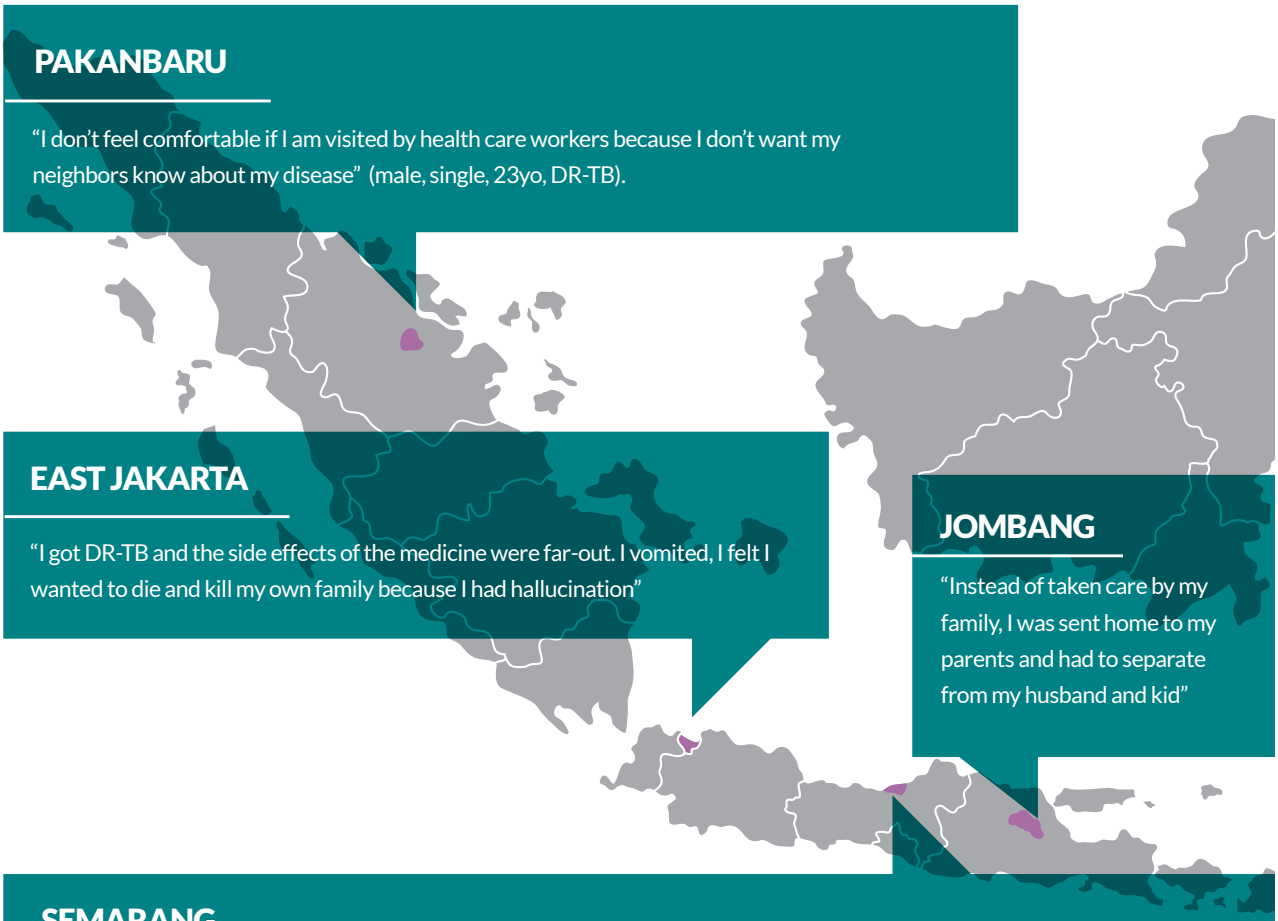
Table 14. b. Self-reported monthly income and poverty level in IDR

In Thousand IDR	DS-TB patients		DR-TB patient		All TB patients		p-value
	Mean	(95% CI)	Mean	(95% CI)	Mean	(95% CI)	
Self-reported monthly Income (in thousand IDR): before onset of TB symptoms, mean (95% CI)							
Individual patient	2,346.8	(2012.6-2681)	3,212.7	(2225.8-4199.6)	2,362.1	(2033.3-2690.9)	0.101
Household	3,211.2	(2840.3-3582.2)	3,836.2	(2916.8-4755.7)	3,223.4	(2859.3-3587.5)	0.209
Self-reported monthly income (in thousand IDR): at the interview, mean (95% CI)							
Individual patient	2,091.1	(1770.4-2411.8)	2,998.8	(1646.6-4351)	2,103.4	(1786.5-2420.4)	0.193
Household	2,806.4	(2456.5-3156.2)	2,960.5	(2035.7-3885.3)	2,809.2	(2465.4-3153)	0.753
The patient was the primary income earner before the onset of TB symptoms, percentage (95% CI)							
No	60.1	(56-64.2)	63.1	(54.1-72)	60.1	(56.1-64.2)	0.068
Yes	39.9	(35.8-44)	36.9	(28-45.9)	39.9	(35.8-43.9)	

In Thousand IDR	DS-TB patients		DR-TB patient		All TB patients		p-value
	Mean	(95% CI)	Mean	(95% CI)	Mean	(95% CI)	
Impoverishment: TB-affected households below the poverty line, percentage (95% CI)							
Before the onset of TB symptoms	64.1	(58.3-69.9)	59.1	(50.4-67.9)	64.0	(58.3-69.7)	0.581
At the interview	67.3	(62.3-72.3)	58.7	(47.8-69.6)	67.2	(62.2-72.1)	0.269

In general, both DS-TB and DR-TB patients experienced a decrease in individual and household monthly incomes after receiving TB diagnosis. About 40% of patients with TB are primary income earners. The proportion of primary income earners does not differ between the DS-TB and DR-TB patients. There was no significant difference between DS-TB and DR-TB patients in impoverished households (below the poverty line). The difference was also not different before and after diagnosis.

SOCIAL IMPACTS DUE TO TB



PAKANBARU

"I don't feel comfortable if I am visited by health care workers because I don't want my neighbors know about my disease" (male, single, 23yo, DR-TB).

EAST JAKARTA

"I got DR-TB and the side effects of the medicine were far-out. I vomited, I felt I wanted to die and kill my own family because I had hallucination"

JOMBANG

"Instead of taken care by my family, I was sent home to my parents and had to separate from my husband and kid"

SEMARANG

"I feel worry about my status, I am single and have TB. I feel I don't deserve to marry someone until I get cured"

"People also talk behind me about my disease and my income from warung also decreased (because they don't want to buy in my warung). I have asked the village government to help me to change my BPJS status from non-subsidized BPJS into subsidized BPJS, but it also didn't make it"


SIGI
"First, I sought the treatment to a traditional leader as suggested by our relatives and neighbors because they thought it was a black magic. This is the tradition in our place and if we didn't do this, we would be discriminated and people will talk behind us. After getting worse, finally we sought the treatment to health facility and my father committed to be my treatment supporter" (father of male, single, 17yo)
AMBON
"I got depression due to TB because I had got rejection and failed to get married only one week before the wedding"
"When I was diagnosed of TB, I was getting stressed. Instead of taking TB treatment in Puskesmas, I was seeking alternative medicine (rukhiah)"
SIDENRENG RAPPANG
"I was fired due to my disease because my supervisor was afraid of the transmission"

Results from the private sector

Patients with TB treated in private sectors were recruited from two districts, Semarang and Deli Serdang. The patients were recruited from private clinics and hospitals.

Table 15. Socio-demographic characteristics of study participants

	DS-TB patient	
	N	(%)
Total	**263**	
Demographic characteristics		
Sex		
Female	130	49
Male	133	51
Age group		
0–14	16	6
15–24	42	16
25–34	44	17
35–44	49	19
45–54	53	20
55–64	39	15
≥65	20	7
Education level		
No education	15	6
Pre/Primary school	51	19
Secondary school or above	197	75
Insurance status*		
With insurance	255	97
No insurance	8	3
Household Income Quintiles		
Fifth (highest)	66	25
Fourth	65	25
Third	65	25
Second	40	15
First (lowest)	27	10

**Insurance included national health insurance (JKN) and private insurance.*

A total of 263 patients with DS-TB were recruited. There were approximately equal number of participants in terms of gender. Similar to patients with TB from public providers, most of the patients were at their productive age (71% at age 15-54 years), with 75% of all patients having secondary school. Almost all (97%) of patients with TB reported having insurance schemes.

Table 16. Clinical characteristics of study participants

Clinical characteristics	N	(%)
Treatment phase		
Intensive phase	62	24
Continuation phase	201	76
Treatment category		
New	241	92
Relapse	17	6
Retreatment	5	2
HIV status		
Negative	153	58
Positive	4	2
Unknown	106	40
Type of TB		
Bacteriologically confirmed pulmonary TB	136	52
Clinically diagnosed pulmonary TB	60	23
Extrapulmonary TB	67	25
Diagnostic delay (>4weeks) *	**49**	**80**
Modality of TB treatment		
Self-administered	67	25
With treatment observer	196	75
Currently hospitalized	**76**	**29**
Previously hospitalized in the current treatment phase	**19**	**7**
Body mass index		
<18.5	84	32
≥18.5	179	68

**Information for the diagnostic delay was collected only from patients who were in intensive phase at the time of interview*

Approximately three-quarters of DS-TB samples in our study were in the treatment continuation phase, with 92% in new treatment and 8% in the relapse and retreatment categories. Almost one-third of DS-TB had not performed HIV tests. There are still 18% of DS-TB diagnosed clinically. About a quarter of patients with DS-TB did self-administered treatment. However, the majority of patients with DS-TB (75%) in the private health sector had treatment observers to monitor their treatment.

Figure 15. Total cost incurred per Tuberculosis-affected household

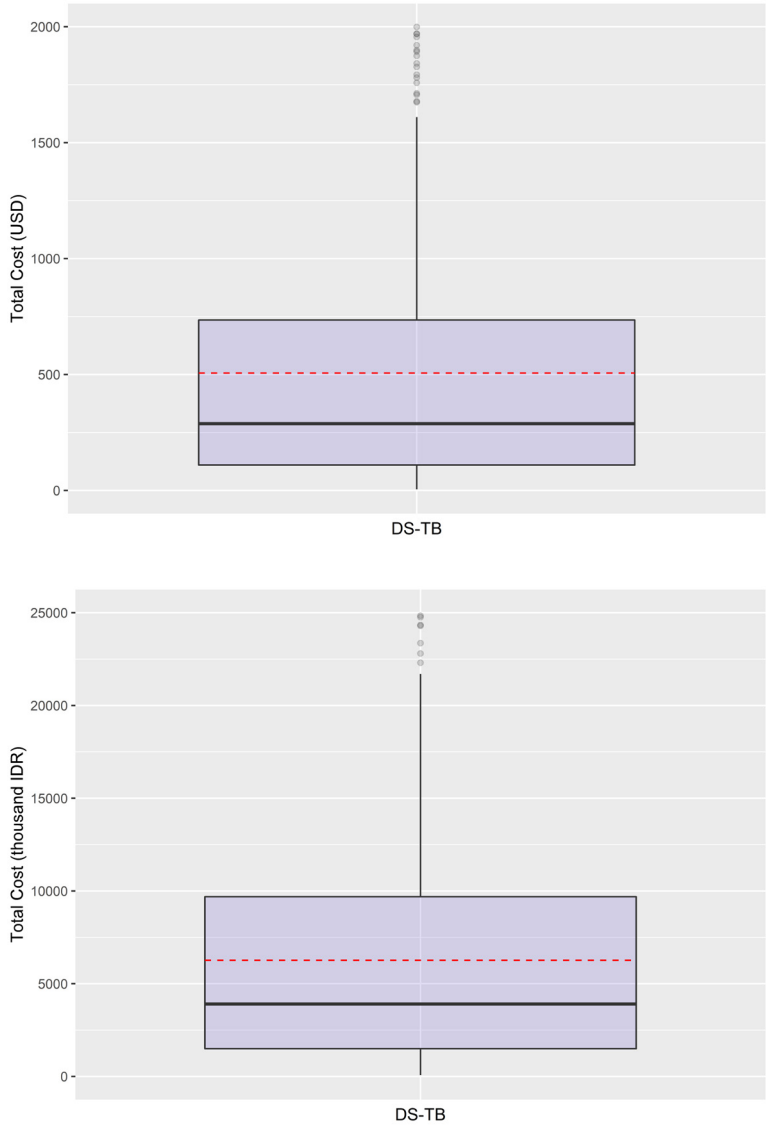
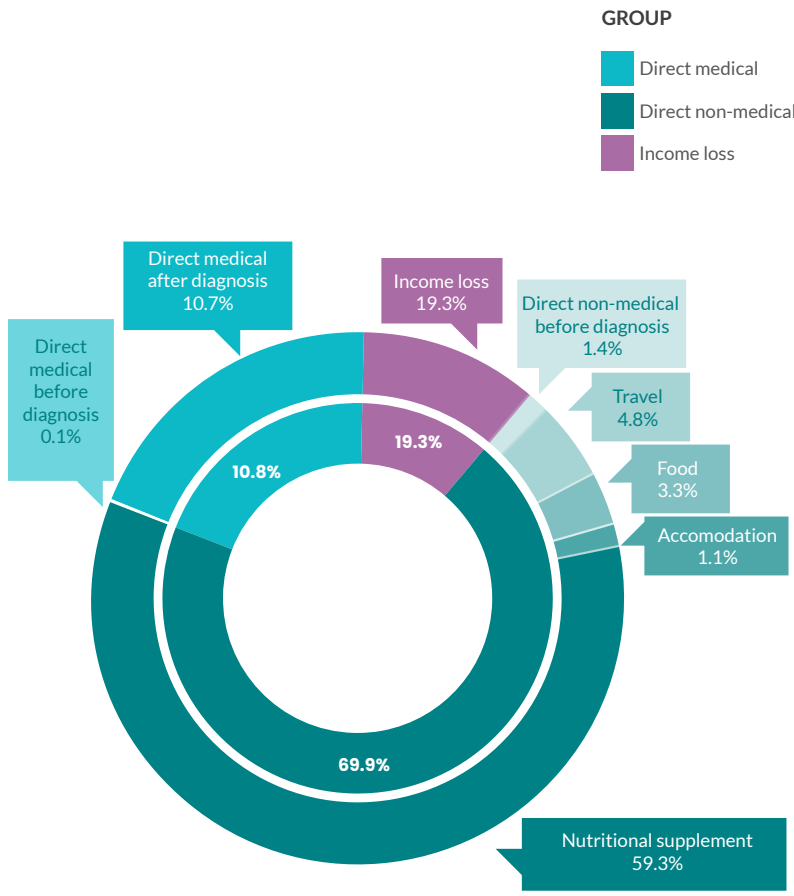


Figure 15 shows the average total cost incurred per household for patients with DS-TB in the private sector is USD 500 (IDR 8.7 million). The total cost is mainly contributed from purchasing nutritional supplements before TB diagnosis was established (70%) and during treatment (59%). Another significant cost component was the income loss as patients with TB and their caregivers seek TB treatments (19% before and after TB diagnosis was established).

Figure 16. Distribution of total costs by cost category



Indirect medical costs contributed to about 70% of total costs among patients with TB in the public sector (Figure 16). Cost for the nutritional supplements is the main driver to indirect medical cost (59%).

Table 17. a. Detail of costs incurred per Tuberculosis-affected households (USD) in period of treatment

TB patient costs, USD			DS-TB patient		
			Mean	SD	Median
Pre-TB diagnosis	Direct medical costs		0.5	0.2	0.1
	Direct non-medical costs		7.9	1.0	4.2
	Total direct costs		8.4	1.0	4.2
Post-TB diagnosis	Direct medical costs	DOT	0	0	0
		Follow-up	59.7	18.1	0.4
		Hospitalization	9.2	5.4	0
	Direct non-medical costs	Travel	29.7	2.5	20.5
		Accommodation	7.8	4.5	0.1
		Food	21.4	4.2	0
		Nutrition supplement	350.4	27.7	197
Total direct medical costs			69.3	18.9	0.5
Total direct non-medical costs			417.3	30	253.6
Income loss			113.2	22.5	0
Total cost (output approach)			599.8	47.0	302.9
Total indirect costs			272	61.7	14.9
Total cost (human capital approach)			**759**	**77.7**	**386.9**

	TB patients facing catastrophic			
(IQR)	Mean	SD	Median	(IQR)
(0.1-0.1)	0.5	0.2	0.1	(0.1-0.1)
(4.2-4.2)	12.1	2.4	4.2	(4.2-4.2)
(4.2-4.2)	12.6	2.5	4.2	(4.2-4.2)
(0-0)	0	0	0	(0-0)
(0.2-9.3)	133.9	47.1	0.6	(0.3-65)
(0-0)	26	15.2	0	(0-0)
(10.8-36.2)	41.7	6.3	27.4	(15.5-41.6)
(0.1-1.8)	17.3	12.7	0.1	(0.1-1.8)
(0-19.7)	35.8	11.4	0	(0-31.9)
(0-537.3)	622	51.1	564.1	(268.6-895.5)
(0.3-11.8)	160.4	49.4	3.9	(0.4-115.7)
(95.8-563.9)	728.9	58.3	616	(344.5-923.1)
(0-0)	291.8	58.2	0	(0-413.6)
(110.2-787.5)	1,181	97.4	1,023.6	(574.2-1571.7)
(0-173.4)	209	52	11.2	(0-172.8)
(149.4-926.9)	**1,098**	**126**	**843.6**	**(458.7-1411)**

Table 17. b. Detail of costs incurred per Tuberculosis-affected households (IDR) in period of treatment

TB patient costs, (in thousand IDR)			DS-TB patient		
			Mean	SD	Median
Pre-TB diagnosis	Direct medical costs		6.6	2.3	1
	Direct non-medical costs		115.1	13.9	60.2
	Total direct costs		121.7	14.8	61.3
Post-TB diagnosis	Direct medical costs	DOT	NA	NA	NA
		Follow-up	865.4	262	6.1
		Hospitalization	133.0	77.7	0
	Direct non-medical costs	Travel	431.2	36.1	297.1
		Accommodation	113.1	65	1.9
		Food	310.4	61.3	0
		Nutrition supplement	5,083.5	401.4	2,857.8
Total direct medical costs			1,005.0	274.8	7.9
Total direct non-medical costs			6,053.3	435.3	3,679.3
Income loss			1,642.5	326.9	0
Total cost (output approach)			8,700.8	682.0	4,394.1
Total indirect costs			3,949	894.4	216.3
Total cost (human capital approach)			**11,007**	**1,127.7**	**5,613.1**

	TB patients facing catastrophic			
(IQR)	Mean	SD	Median	(IQR)
(1-1)	6.8	3	1	(1-1)
(60.2-60.2)	175.4	35.2	60.2	(60.2-60.2)
(61.3-61.3)	182.2	36	61.3	(61.3-61.3)
NA	NA	NA	NA	NA
(2.9-135.2)	1,942.1	683.5	9.3	(4.6-942.6)
(0-0.3)	377.7	220.7	0	(0-0.3)
(157-524.6)	605.0	91.7	396.8	(225.5-603)
(1.1-26.1)	251.0	184.8	2	(1.1-26.4)
(0-285.7)	519.5	165.3	0	(0-462.2)
(0-7794)	9,022.4	741.5	8,183.7	(3897-12990)
(4.1-171)	2,326.6	716.7	57.2	(6.4-1677.9)
(1389.3-8180.2)	10,573.3	845.4	8,936.3	(4997.4-13390.9)
(0-0)	4,232.4	843.8	0	(0-6000)
(1598.2-11424.2)	17,132.3	1412.4	14,848.8	(8329.1-22800.7)
(0-2516)	3,024	751	161.9	(0-2506.7)
(2166.6-13446)	**15,924**	**1,830**	**12,237.5**	**(6654.3-20469.4)**

Tables 17.a. and 17.b. describe the cost incurred by households due to TB treated in the private sector. The average household incurred cost was USD 599.8 (IDR 8.7 million), while the household facing catastrophic cost spent on average USD 1,181 (IDR 17.1 million). Meanwhile, using the human capital approach, the total household cost was USD 759 (IDR 11.0 million) and USD 1,098 (IDR 15.9 million) for the household facing catastrophic costs.

The highest cost component was the direct non-medical cost (USD 417.3; IDR 6.1 million, predominantly allocated for nutritional supplements (USD 350.4; IDR 5.1 million). The direct medical cost was higher during TB treatment compared to the cost before diagnosis. In addition, a significant amount of the direct medical costs was allocated for follow up visits (USD 59.7; IDR 865.4 thousand).

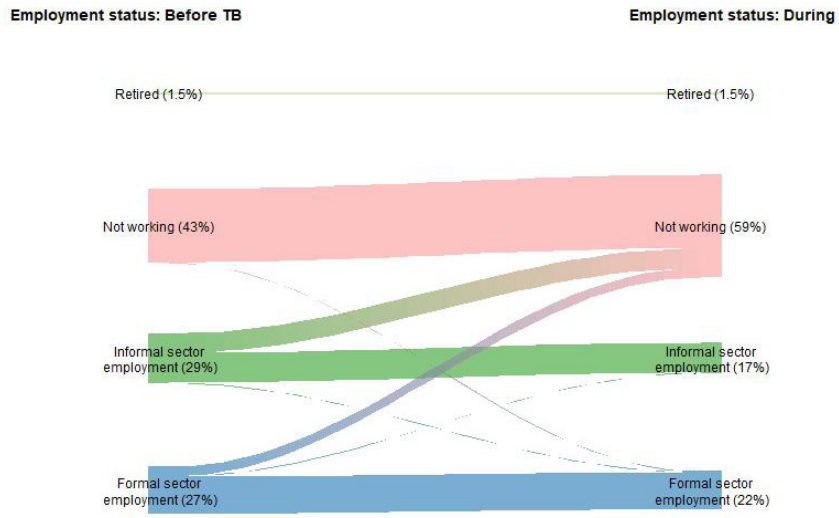
The highest cost component for TB patients' households facing catastrophic cost was direct non-medical cost (USD 728.9; IDR 10.6 million), followed by the income loss (USD 291.8; IDR 4.2 million). The highest component for the direct non-medical cost was the nutritional supplements (USD 622; IDR 9.0 million). The highest cost component for direct medical costs was the follow-up visit (USD 133.9; IDR 1.9 million).

Table 18. Number of facility visits and hours lost

	DS-TB patient	
	Number	SD
Number of facility visits		
Pre-disease	2.0	0.2
Directly observed therapy	193.9	4.6
Medical follow-up	15.8	0.7
Total visit	160.8	6.4
Hours lost by patient,		
Pre-disease	3.2	0.5
Hospitalization	12.1	6.0
Directly observed therapy	213.6	16.6
Medical follow-up	31.0	1.7
Total lost time	258.9	18.5
Hours lost by caregivers		
Hospitalization	39.2	20.5
Directly observed therapy	286.6	19.8
Medical follow-up	31.3	1.7
Total lost time	469.5	34.5

The average number of facility visits by DS-TB patients in the private sector was 160.8 visits. Most of the facility visits were for DOT visits (193.8 visits). This total number of visits corresponded with 216.9 hours lost for the patients with TB and 389.4 hours lost by caregivers. Most of the time used was for DOT visits both for the patients with TB (175.3 hours) and the caregivers (235.2 hours).

Figure 17. Changes in employment status before and during Tuberculosis episode



The unemployment level among the patients in private sectors increased up to 16% due to TB (from 43% to 59%). Most of the patients with TB who experienced job loss were from those who had jobs in informal sectors. Approximately 12% of patients with TB in private sectors who had jobs in the informal sectors changed their employment status. Most of these patients became unemployed, and only a very small fraction became employees in the formal sectors. Approximately 5% of those with formal sector employment also became unemployed after receiving TB diagnosis (Figure 17).

Table 19. a. Self-reported monthly income and poverty level (USD)

In USD	DS-TB patients	
	Mean	SD
Self-reported monthly Income (in thousand IDR): before the onset of TB symptoms, mean (SD)		
Individual patient	195.0	(9.7)
Household	284.8	(13.3)
Self-reported monthly income (in thousand IDR): at the interview, mean (SD)		
Individual patient	209.1	(11.5)
Household	275.3	(13.5)
The patient was the primary income earner before the onset of TB symptoms, percentage (SD)		
No	66.5	(2.9)
Yes	33.5	(2.9)
Impoverishment: TB-affected households below the poverty line, percentage (SD)		
Before the onset of TB symptoms	53.6	(3.1)
At the interview	55.9	(3.1)

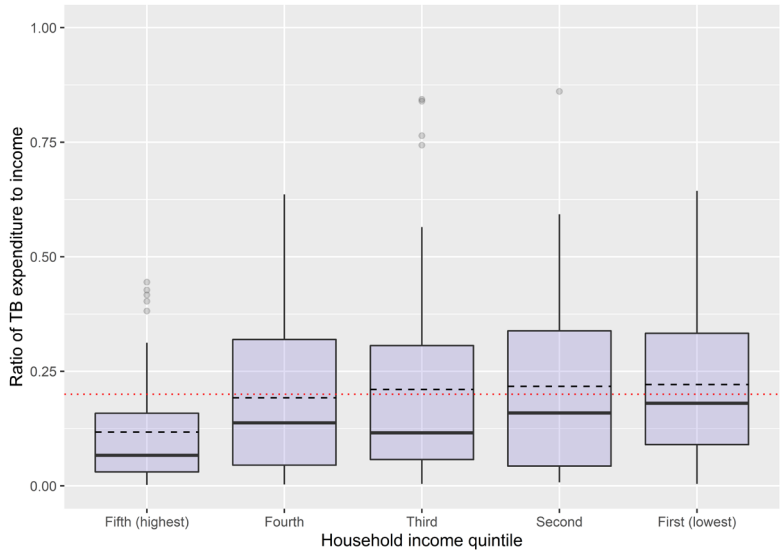
Table 19. b. Self-reported monthly income and poverty level (IDR)

In thousand IDR	DS-TB patients	
	Mean	SD
Self-reported monthly Income (in thousand IDR): before the onset of TB symptoms, mean (SD)		
Individual patient	2,828.9	(141.4)
Household	4,132.2	(192.7)

In thousand IDR	DS-TB patients	
	Mean	SD
Self-reported monthly income (in thousand IDR): at the interview, mean (SD)		
Individual patient	3,033.5	(166.6)
Household	3,994.0	(196.4)
	%	(95% CI)
The patient was the primary income earner before the onset of TB symptoms, percentage (SD)		
No	66.5	(2.9)
Yes	33.5	(2.9)
Impoverishment: TB-affected households below the poverty line, percentage (SD)		
Before the onset of TB symptoms	53.6	(3.1)
At the interview	55.9	(3.1)

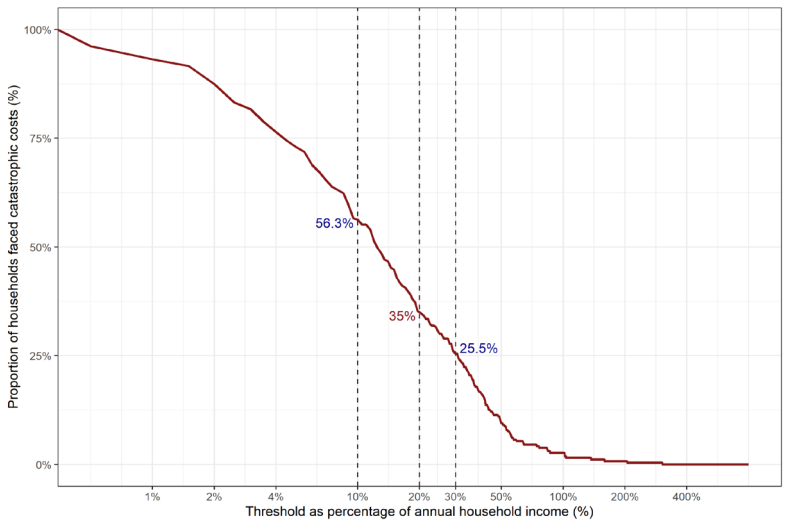
Patients with TB reported a reduction of household income from an average of IDR 4.1 million before diagnosis to IDR 3.0 million after TB diagnosis. However, individually, TB patients reported an increase in income after diagnosis. One-third of the patients with TB were the breadwinner of the household. In addition, there was a 2% increase in households that were below the poverty line.

Figure 18. Ratio of Tuberculosis expenditure to income by household income quintile



35% of the household (on top of the red dash line, which was 20% of the ratio of TB expenditure to income) facing catastrophic costs (Figure 18).

Figure 19. Sensitivity analysis for proportion of catastrophic costs faced by Tuberculosis-affected households



Overall, 35% of the households reported facing catastrophic costs due to TB, with TB treatment costing20% of household income (Figure 19). However, if we lower the catastrophic cost threshold by 10%, the households facing catastrophic costs will increase by 56%. Meanwhile, increasing the

catastrophic cost threshold to 30% still affects approximately 26% of the TB patients' households.

Table 20. Coping mechanisms and social consequences

	All TB patients	
	%	SD
Coping mechanisms		
Dissaving	23.2	2.6
Loan	13.3	2.1
Sales of assets	8.7	1.7
Any of above	36.1	3.0
Social consequences		
Food insecurity	6.1	1.5
Divorce/separation	NA	
Job loss	9.1	1.8
Interrupted schooling	NA	
Social exclusion	1.5	0.8
Productivity loss	15.2	2.2
Any of above	28.1	2.8
Social support		
Social assistance	23.6	2.6
Vouchers from NTP	NA	
Perceived financial impact		
Richer	NA	
Not changed	54.8	3.1
Poorer	38.8	3.0
Much poorer	6.5	1.5

Table 20 describes the coping mechanism for TB patients in the private sector when they face financial difficulties. Most of the patients used more than one strategy (36.1%), while 23% were cashing out their savings. The pattern of coping strategies for TB patients in the private sector are similar to the coping strategies for patients with TB in the public sector.

TB patients in the private sector face less social consequences compared to the patients with TB in the public sector. While more than half of patients with TB in the public sector face more than one social impact, the proportion of patients with TB in the private sector experiencing a similar situation was only 28.1%. Only 9.1% lost their job and 15.2% reported productivity loss. Approximately 55% of patients with TB reported that their economic status remains the same and around 39% reported to become poorer or even much poorer (6.5%).

CHAPTER 5
DISCUSSION & CONCLUSIONS

Our study found that almost 40% of all TB affected households face catastrophic costs in the public health sector. The prevalence of catastrophic cost for patients with DR-TB is more prominent than DS-TB (80% vs 37%). Meanwhile, in the private health sector, the proportion of households faced TB catastrophic cost is 35%. The proportion of households with the lowest quintile of income is 27%. The prevalence of catastrophic costs in Indonesia is almost similar to the Philippines and Ghana (17). The details are presented in Table 21.

Table 21. Comparison of TB catastrophic cost prevalence and component of TB catastrophic cost among countries

	Indonesia[25]			Ghana[17,24]
	DS	DR	All	All
% households with TB catastrophic cost	NA	NA	NA	64
Direct medical cost (mean in USD)	134	253	13.,1	14 283
Direct non-medical cost (mean, in USD)	315	1 368	359.6	438
Indirect cost (mean, in USD)	556	739	564.1	321
Total cost (mean, in USD)	**1 005**	**2 359**	**1 06.,8**	**901**

In all patients with TB, most costs (70%) comprises direct non-medical costs. Most of the expenses in the direct non-medical cost are for purchasing nutritional supplements. The pattern is similar between public and private health sectors and DS-TB and DR-TB patients.

Among the patients having NTP social protection, the prevalence of TB affected households with catastrophic costs remains high, i.e. 37.5%, 37.1% and 55.5% for all TB, DS-TB, and DR-TB patients, respectively). These findings suggest that the existing NTP social supports have decreased the proportion of DR-TB affected households faced catastrophic costs for 24.5% for patients with DR-TB but had a marginal effect (0.4%) among patients with DS-TB.

Hence, our study suggests interventions to improve the coverage and benefits of social protection to TB patients. Social protection should cover direct non-medical costs, which is the cost driver for the catastrophic cost. In addition, the social protection should also be given for patients with DS-TB, not only for patients with DR-TB like what has been implemented nowadays.

Zimbabwe[18]		Kenya[19,20]		Uganda[21]		Vietnam[11]		Timor Leste[22]	China[23]
DS	DR	DS	DR	DS	DR	DS	DR	All	
80	NA	26.5	NA	53	NA	63	NA	>20	NA
103	207	950	803	20	79.3	791	134	216.86	NA
411	1 545	17 739	93 833	198	2 239	2 134	412	1 37.57	NA
240	1 200	3 596	31 327	116.5	1 219	1 376	508	1 005.9	NA
1 185	**3 596**	**25 874**	**145 109**	**396**	**3 722**	**4 302**	**1 314**	**2 585.5**	**NA**

In recent there are social protection programs from the national government e.g. Program Keluarga Harapan/PKH, Bantuan Sosial Beras Sejahtera/Rastra, Bantuan Pangan Non Tunai/BNPT, Bantuan Sosial Tunai/ BST, Kartu Sembako etc. Patients with TB who are at risk to experience catastrophic cost should receive benefit of social protection programs. Screening tools to identify patients with DS-TB and DR-TB who potentially have catastrophic cost should be developed.

Our study also argues for a review on evidence related to the needs of nutritional supplement for treatment package. If nutritional supplement is effective to contribute to TB treatment outcome, then the benefits of social protection should cover the cost, and vice versa. Further research on motivation of health care providers to recommend nutrition supplements and how the community perceived about the importance of nutrition supplements to improve TB treatment outcome are needed.

Job security is an essential need for both patients with DS-TB and DR-TB. Job security should cover patients with TB in the public and private health sectors. There is a change of employment status before and after being diagnosed, i.e. from having formal sector employment to unemployment or informal jobs (10%) and from having informal jobs to unemployed (10%). Our study has provided evidence about the increased proportion of patients with TB with unemployment (about 28% in the public health sector and 14% in the private health sector). In addition, about 4% of patients with TB reported being fired from their jobs due to TB. Multi-sectoral collaboration is needed to solve this problem, including the BPJS Ketenagakerjaan and the Ministry of Workforce.

In term of private sector, our survey found that the proportion of catastrophic cost in private sector (35%) is lower than in public sector (38.4%). However, the highest component that contributed to the catastrophic cost faced by patients with TB in private sector is relatively the same as in public sector, i.e. direct non-medical cost. The finding also showed that patients with TB in private sector mostly used their saving as their coping mechanism rather than patients with TB in public sector (23% and 18% respectively). This showed that the coping mechanism of patients with TB in private sector is better than patients in public sector. Additionally, the change of unemployment status among patients with TB in private sector (16%) was lower than patients in public sector (20%).

Limitations of the study

- This survey was being a cross-sectional study that has more limitation compared to longitudinal study.
- The survey was conducted during the COVID-19 pandemic with all its restrictions.
- There was potential recall bias due to extrapolation of costs from different treatment phases.
- The imputation taken in this survey was based on the assumption.
- The results of this survey should be read in the context of the cost spent within the pandemic situation.

CHAPTER 6
POLICY IMPLICATIONS AND RECOMMENDATIONS FROM THE FINDINGS OF THE STUDY

We propose some policy recommendations, including:

1. The Indonesian government should develop a screening tool to determine the potential patients with DR-TB and DS-TB to experience catastrophic cost. Those who are poor should be included in Program Keluarga Harapan (PKH).
2. The Indonesian government should provide social protection vouchers for all patients with TB, particularly in public health care facilities. The social protection scheme should also be distributed among selected patients with TB with the financial burden in the private sector.
3. The Ministry of Health should ensure that health care providers do not recommend patients with TB to buy food supplements/vitamin except those who really need it.
4. Providing an intervention to health care providers or providing nutritional food/supplement in the treatment package management. However, it needs further research to determine which intervention that is more suitable.
5. The coverage of current social protection vouchers for patients with DR-TB should be increased.
6. Finally, the government should ensure job security for patients with TB.

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STUDY TEAM

Technical Advisors

dr. Siti Nadia Tarmizi, M.Epid
dr. Tiffany Tiara Pakasi, MA

Research Team

NO	NAME	ROLE	ORGANIZATION
1	dr. Riris Andono Ahmad, MPH, Ph.D	Principal Investigator	Universitas Gadjah Mada
2	Prof. dr. Ari N. Probandari, MPH, Ph.D	Survey Coordinator	Universitas Sebelas Maret Center for Tropical Medicine Universitas Gadjah Mada
3	Dr. dr. Bagoes Widjanarko, MPH, MA	Team Leader	Universitas Diponegoro
4	Prof. DR. Chatarina Umbul Wahyuni, MS, MPH	Team Leader	Universitas Airlangga
5	Dr. dr. Ratih Puspita Febrinasari, M.Sc	Team Leader	Universitas Sebelas Maret
6	Christa Dewi, SKM, M.Nur., Ph.D	Project Manager	Universitas Gadjah Mada
7	dr. Firdaus Hafidz As Shidieq, MPH, Ph.D	Data Analyst	Universitas Gadjah Mada
8	Agus Kuntarto, S.Si	Data Manager	Universitas Gadjah Mada
9	Annisa Satriani, SKM, MPH	Research Assistant	Universitas Gadjah Mada
10	Dr. Fariani Syahrul, SKM.,M.Kes	Research Assistant	Universitas Airlangga
11	dr. Stefanus Erdana Putra	Research Assistant	Universitas Sebelas Maret
12	Lintang Dian Saraswati, SKM.,M.Epid	Research Assistant	Universitas Diponegoro

Technical Assistance

NO	NAME	ROLE	ORGANIZATION
1	Dr. Shalala Ahmadova	External Expert	WHO Indonesia country office
2	Dr. Setiawan Jati Laksono	External Expert	WHO Indonesia country office
3	Dr. Maria Regina Christian	External Expert	WHO Indonesia country office
4	Jonathan Marshall M. T. Marbun, BSc	External Expert	WHO Indonesia country office
5	Yoana Anandita, SKM	External Expert	WHO Indonesia country office
6	Mikyal Faralina, SKM	External Expert	WHO Indonesia country office
7	Dr. Partha Pratim Mandal	External Expert	WHO SEARO
9	Dr. Nobuyuki Nishikiori	External Expert	WHO HQ
9	Dr. Takuya Yamanaka	External Expert	WHO HQ
10	Ratna D. Sagala	External Expert	National TB Program

Protocol Development Team

1. dr. Pandu Riono, MPH, Ph.D
2. Muhammad Noor farid, Ph.D
3. dr. Nobuyuki Nishikiori
4. Jonathan Marshall M. T. Marbun, BSc
5. dr. Maria Regina Christian
6. dr. Setiawan Jati Laksono

APPENDICES

Questionnaire

Code of City : _____
Code of Health Facility : _____
Name of Health Facility : _____

TUBERCULOSIS PATIENT COST SURVEY

Questionnaire

Part I. Eligibility Criteria						
No	Health Facility Register Number	Gender	Age	Treatment Start Date	Is the patient currently hospitalized at the hospital? (Yes/No)	Eligibility (Yes/No) (Filled by FC)
1.						
2.						
3.						
4.						
5.						
6.						
7.						

Code of City : _____
Code of Health Facility : _____
Name of Health Facility : _____

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20.						

Code of City : _____
Code of Health Facility : _____
Name of Health Facility : _____

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Code of City : _____
Code of Health Facility : _____
Name of Health Facility : _____

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Code of City : _____
Code of Health Facility : _____
Name of Health Facility : _____

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Code of City : _____
Code of Health Facility : _____
Name of Health Facility : _____

60.						
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62.						
63.						
64.						

Participant ID ☐☐ ☐☐ ☐☐

Tuberculosis Patient Cost Survey

Part II. Informed Consent

Introduction and Research Information

Introduction to the patient:
My name is..... [introduce yourself]. I am working for the Center of Tropical Medicine UGM. Currently, Gadjah Mada University along with Airlangga University, Diponegoro University, and Sebelas Maret University are working together to help the National TB Program to conduct TB patient survey. The aim of the survey is to measure financial burden of TB patients during TB treatment. The result of this survey will be adopted by the Ministry of Health to explore how to reduce the economic burden on TB patients and how the TB program can help the community to access healthcare services. This survey is conducted in 25 districts and cities, involving around 1,500 TB patients seeking treatment at public health centers, hospitals, private clinics, and private general practitioners in Indonesia. This survey was chaired by dr. Riris Andono Ahmad PhD.

We would like to interview you because you are registered as currently undergoing TB treatment in _____ (state health facility name). This interview takes approximately 90 minutes. During the interview, we will ask several questions regarding:

1. Condition of your TB
2. How many times have you visited a health facility during TB disease
3. For every visit made, we will ask for how much it costs and what the costs are used for
4. The socio-economic impact experienced by suffering from TB disease, and
5. We will also ask about information that may be sensitive to you, related to family income, adaptations made to cover medical expenses, such as selling property, or going into debt (if this happens).

The information that you will provide will be used for study purposes only, and it will be used by the researchers involved for further analysis and published. All information related to personal data will be deleted to ensure the confidentiality of the patient. We guarantee that data related to personal income and overall household income, WILL NOT be given to other parties, including to the authorities (tax) even after this study has been completed.

Participant ID | | | | | | |

Please note that your participation in this study is completely voluntary. We would be very grateful if you are willing to participate in this study. We also appreciate it if you are not willing to participate in this study. If you refuse to participate in this study, that decision will not affect your right to receive health services and medication that have been received so far. You can continue the treatment that has been received as usual.

There is no direct benefit that you can receive if you are involved in this research. However, the results of this study will be useful for other TB patients in the future, because the information obtained from this survey will help TB programs in Indonesia to be able to design programs that can reduce the financial burden experienced by TB patients.

If you are willing to participate in this study, you can withdraw from this study at any time without having to give us an explanation.

You have opportunity to ask all the unclear things related to this study. If you need further explanation, please contact:

Principal Investigator:
Name: dr. Riris Andono Ahmad, MPH., Ph.D
Hp: 0815-7808-5505
Email: risandono_ahmad@ugm.ac.id
Adress: Center for Tropical Medicine, Faculty of Medicine, Public health and Nursing UGM.

You could also ask about this study to:
Medical and Health Research Ethical Committee, Faculty of Medicine, Public Health and Nursing UGM Radiopoetro Building Level 2 West Wing, Jl. Farmako, Sekip Utara, Yogyakarta 55128 via telp. 0274-588688 pswt 17225 (for UGM area)
Or Phone +62811-2666-869 (outside of UGM area), or e-mail: mhrec_fmugm@ugm.ac.id.

It is necessary to inform you that the results of this study will be published in a journal and you may request a copy of this publication from the Principal Investigator.

This survey takes approximately 60-90 minutes.

Participant ID ☐☐ ☐☐ ☐☐

Informed Consent

I hereby :
Name :
Address :

Are the parents of the child (to be filled if the respondent is children <18 years old):
Name :
Age :
No. TB Register:
I have read this information or have read by researchers regarding this information. My question has been answered and I know that I may ask further questions. I understand that this research is to explore the economic burden of households on tuberculosis. I therefore declare:

- ☐ Agree to participate in this research
- ☐ Do not agree to participate in this research, because:
- ☐ Inadequate language / information difficulties
- ☐ Unable (time)
- ☐ Uncomfortable to do interviews
- ☐ Others, specify.....

If you agree to participate in this research, do you give us your consent to access your personal information contained in the medical card?

- ☐ Yes
- ☐ No

..... , ... (place/date)

Respondent, Witness (for those who could not read),

(_____) (_____)
Name of Respondent/Parent Name of Witness

Researcher,

(_____)
Name of Researcher

Participant ID | | | | | | |

Informed Consent for 13-17 Years Old Children (Assent)

I hereby :
Name : _____

States that
I have read this information or have read by researchers regarding this information. My question has been answered and I know that I may ask further questions. I understand that this research is to explore the economic burden of households on tuberculosis. I understand that some information about myself will be recorded by the research team. By signing this form, I agree to participate in this research.

..... , ... (place/ date)

Participant,

(_____)
Name of participant

Note: This signed copy is given to the patient. This form must be signed by a guardian for children under 18 years old.

Participant ID ☐☐ ☐☐ ☐☐

Informed Consent

Part III. Patient's Information

1. Participant ID	|_|_|-|_|_|-|_|_|
2. Interview date	|_|_|/|_|_|/|_|_|_|_|
3. Coordinate of Interview location	|_|_|.|_|_|_|_|_|_|_|, |_|_|_|.|_|_|_|_|_|_|
4. Interview location 1. Patient's address 2. Health facility 3. Others, specify _____	|_| If number 3, specify _____
5. Interviewer Name	_____
6. Address	_____
7. Code of Province 01. Aceh 06. DKI Jakarta 11. NTT 02. Riau 07. West Java 12. South Sulawesi 03. Sumatera Barat 08. Central Java 13. Central Sulawesi 04. Sumatera Utara 09. East Java 14. South East Sulawesi 05. Banten 10. Maluku	|_|_|
8. Code of City/Regency 01. Aceh Jaya 10. East Jakarta 19. Tuban 02. Pekanbaru City 11. West Jakarta 20. Ambon City 03. Rokan Hilir 12. Bogor 21. Malaka 04. Pariaman City 13. Bandung City 22. Makassar City 05. Deli Serdang 14. Bekasi City 23. Sidenreng Rappang 06. Mandailing Natal 15. Cilacap 24. Sigi 07. East Tangerang 16. Semarang City 25. North Buton 08. Tangerang 17. Jombang 09. West Jakarta 18. Madiun	|_|_|

Participant ID | | | | | | |

9. Gender 1. Man 2. Woman	| _ |
10. Age	| _ | _ | years

Patient's Information from TB 01

11. Date of first TB bacteriological examination (current TB disease) *Note: Fill 98/98/9898 if the patient is not diagnosed using bacteriological examination*	| _ | _ |/| _ | _ |/| _ | _ | _ | _ |
12. Date of diagnosis	| _ | _ |/| _ | _ |/| _ | _ | _ | _ |
13. Place of diagnosis (refer to TB 01 form) 1. Public health facility 2. Public Hospital 3. Private Hospital 4. Private clinics (specialist) 5. Private clinics (GP) 6. General Practitioner 7. Others	| _ |
15. Currently in the treatment of TB drug-resistant? 1. Yes 2. No	| _ |
16. Total of treatment duration planned from the start? *Note: If the patient is in the advanced treatment phase, the duration of treatment for the intensive phase should be reported according to the number of months during the intensive phase was performed (refer to TB 01 Form). For example, DS-TB patient, in the advance phase, it was found that the intensive phase which was planned for 2 months had just completed in 5 months. Therefore, it is written"5" intensive months and "4" advanced months (according to the plan).*	| _ | _ |intensive phase | _ | _ |advance phase

17. Registered treatment groups

Drug sensitive TB (DS-TB)	Drug resistant TB (DR-TB)
1. First-line, new	5. Drug-resistant, new (start DR-TB)
2. First-line, relapse	6. Drug-resistant, relapse
3. First-line, re-treatment after loss to follow-up	7. Drug-resistant, re-treatment after loss to follow-up
4. First-line, re-treatment after failure	1. Drug-resistant, re-treatment after failure of first treatment with first-line drugs.
	2. Drug-resistant, re-treatment after failure of re-treatment regimen with 1st-line drugs
	3. Others, specify

| _ | _ |

If 10, specify

_____

18. Current TB Treatment Start Date

Note: Start date of intensive treatment. It is possible date of diagnosis and date of treatment is the same.

| _ | _ |/| _ | _ |/| _ | _ | _ | _ |

19. Is the patient currently in the intensive or advanced treatment phase?

1. Intensive phase
2. Advance phase

Note: Days completing medication are calculated from the start date of treatment to the interview date.

Phase | _ |
| _| _ | _ | days
completing treatment phase

20. HIV Status (indicated in the treatment form)

1. Positive
2. Negative
3. Not tested/ not known

| _ |

21. DM Status

1. Positive
2. Negative
3. Not tested/ not known

| _ |

22. BMI (Body Mass Index) *Notes: refer to TB 01 form, or estimation from the interview*	Weight: | _ | _ | _ | kg Height: | _ | _ | _ | cm

Patient's Socio-demographic Information from the interview

23. What is the highest education level that the patient is currently attending/had attended? *Note: If the patient is under 10 years old, this question is for the guardian of the child information.* 1. Didn't attending school 2. Not yet started school 3. Elementary (Paket A, SDLB, MI) 4. Junior High School (Paket B, SMP LB, MTs) 5. Senior High School (Paket C, SMLB, MA, SMK, MAK) 6. University (D1/D2, D3, D4, S1) 7. Graduate school (S2, S3)	| _ |
24. What is the main occupation of the patient? 1. Military/police of Republic of Indonesia 2. Manager 3. Professional 4. Technician and Assistant of Professionals 5. Administrative Staff 6. Service and Sales Business worker 7. Skilled worker in Agriculture and Forestry 8. Processing and Handicraft worker 9. Machine operator and Assembler 10. Blue collar worker and cleaner 11. Student 12. Housework 13. Unemployment 14. Others, specify..	| _ | _ | If 14, Specify _____

25. What was your main occupation (work, or other main activity) before you have TB? *Notes: This refers to the time before TB symptoms developed. Name all options first.* 1. Unemployed 2. Formal paid worker 3. Informal paid worker 4. Retired 5. Student 6. Housework 7. Others, specify…	| _ | If 7, Specify _____
26. What is your main occupation (work or other main activity) now after you have TB? *Note: This refers to the time after TB symptoms developed. Name all options first* 1. Unemployed 2. Formal paid worker 3. Informal paid worker 4. Retired 5. Student 6. Housework 7. Others, specify…	| _ | If 7, Specify _____
27. If this time you are currently unemployed, what is the reason of your unemployed? 1. Fired due to TB status 2. Fired due to current pandemic situation 3. Resign 4. Others, specify …….	| _ | If 4, specify _____
28. Is there any colleagues in your work place who are unemployed due to covid-19 situation? 1. Yes 2. No 3. Unknown	| _ |
29. Smoking status 1. Smoker To the next question 2. Ex-smoker Go to number 34 3. Never smoking Go to number 34 *Note: including vape users*	| _ |

30. If you are smoker, how often have you smoked in the past 30 days? 1. Every day → To the next question 2. Not every day → To the next question 3. Unknown → Go to number 34	| _ |
31. If 30 answer is "1" or "2", On average, how many of the following products do you smoke per day or per week (if not every day)? *Note: Cigarette refers to cigarette using filter. Kretek refers to cigarette without filter. Vape is electronic cigarette.*	| _ | _ | cigarette/days | _ | _ | _ | cigarette/weeks | _ | _ | kretek/days | _ | _ | _ | kretek/weeks | _ | _ | ml liquid vape/days | _ | _ | _ | ml liquid vape /weeks
32. How much is your average monthly expenditure on cigarette/ kretek/vape?	Rp | _ | _ |.| _ | _ | _ |.| _ | _ | _ |
33. Are you planning to quit smoking because of your illness? 1. Yes 2. No 3. Unknown	| _ |
34. Do you have any type of health insurance? 1. Has no insurance 2. JKN independent 3. JKN/Jamkesda (Government subsidized) 4. JKN employees 5. Private insurance 6. Paid by the company 7. Others, specify:... *Notes: It could be more than one option*	| _ | _ | _ | _ | _ | If 7, specify _____

Participant ID ☐☐ ☐☐ ☐☐

TO BE FILLED FOR NEW CASES IN INTENSIVE PHASE

Part IV. Cost Before the current TB Treatment

- **New cases in intensive phase, non-DR TB treatment, as well as those on DR-TB treatment.**
- **For retreatment case or new case interviewed in the continuation phase: skip to Part V**

Out of pocket payment, reimbursement and time loss on before and after TB diagnosis (before undergoing TB treatment)

35. We would like to ask about what health facilities were visited prior to undergoing TB treatment at this health facility. Before answering these questions, we ask you to imagine again, when did you first begin to feel the symptoms of TB. Common symptoms of TB are cough, weight loss, chest pain, and night sweats.

Recall, when (date / week and month) the symptoms first appeared.
Then, remember all the health facilities that you have visited. When and how many times have you visited the health facility. The last visit was when you received a TB diagnosis at this facility.

Note: Use local calendar with seasonal events that the patients can relate and use those as time references. Use this timeline to map the all dates from seeking medication/care to help you recording informants' answers, so they can answer the next question

Participant ID | | | | | | |

Visit	Type of Health Facility	Date/Time	Type of health facility
Symptom first apprear			1. Public Primary Health Center 2. Public HoSpsital 3. Private Hospital 4. Private clinic (specialistic) 5. Private clinic (GP) 6. Private primary health care (GP) 7. Pharmacy 8. Herbs/traditional practitioner 9. Stall/ Convenience store 10. Community health worker 11. Other, s pecify.....

36. **Next, we would like to ask you how much time and money you spend on each visit you make, before being diagnosed with TB. We ask you to try to remember how much time and money you spend on each visit. This includes visits made when receiving the diagnosis.**

1st Visit	
Type of Healthcare Provider (check with history visit table)	| _ | _ |
Time before starting treatment (weeks): Please fill how many weeks before TB treatment is started from each provider visits *Note: the week calculation is 7 days = 1 week. The next calculation is done by calculating the days rounding down. For example, if time is 15 days then write 2 weeks, if time is 2 days then write 0 weeks.*	| _ | _ | weeks
Travel Time (hours): Time in hours of travel to and from healthcare facility	| _ | _ | hours, | _ | _ | minutes
Time spent for visit: Fill in hours for outpatient visits and hospitalizations	| _ | _ | hours, | _ | _ | minutes
Out of pocket payment by patients, (total per visit in rupiah) (A) *Note:* *Fill in the number 0, if the patient accesses services and does not incur costs;* *Fill in the number 99, if the patient accesses services and does not know / forget.* *Fill in the number 98, if the patient does not access the service (not applicable).*	
Hospitalized Cost (A1) Cost for daily hospitalization, only filled in when it is not included in the detailed costs related to consultation, radiography, etc.	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Consultation Cost (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Radiography and other imaging (A3) Out of pocket payments for radiography investigation (x-rays, CT-scan, ultrasound), TB specific or other	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |

	Laboratory investigation cost (A4) Out of pocket payments for all tests, TB specific or others	|_|_|.|_|_|_|.|_|_|_|
	Other procedures (A5) Out of pocket payments for biopsy, bronchial lavage, etc. But not for unrelated TB surgery.	|_|_|.|_|_|_|.|_|_|_|
	Medicine fee (A6) Any medicine (TB or other) prescribed before TB was diagnosed under NTP regulation	|_|_|.|_|_|_|.|_|_|_|
	Total of medical cost (∑A1-6)	|_|_|.|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in Total per Visit) (B)		
	Travel (B1) Travel Cost to the facility (does not include income loss), for both patient and any household member.	|_|_|.|_|_|_|.|_|_|_|
	Food (during outpatient and inpatient care) (B2) Cost for additional food which was bought in relation to travel for the healthcare visits, and during outpatient or inpatient care, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Accommodation/ renting room (B3) Cost related to renting a room/bed during healthcare visits, and any other non-medical payments related to healthcare visits, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Nutritional supplement (B4) Any other treatments, such as nutritional supplements which are medically indicated	|_|_|.|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket (Total) (∑B1-4)	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per Visit (A+B) (gross)		

Direct payment which was made by individual to health-care providers at the time-of-service use, i.e., excluding prepayment for health services – for example in the form of taxes or specific insurance premiums or contributions. It is calculated as the sum of direct medical (A) and direct non-medical (B) costs. If patient cannot remember the details of costs above, ask for the total out-of-pocket payments of the visit, hospitalization. **Total of out-of-pocket payment (∑A1-6) + (∑B1-4)**	|_|_|.|_|_|_|_|.|_|_|_|
Health insurance reimbursement (C)	
Amount that has reimbursed to patient through health insurance (private or social security), does not include expected future reimbursement	|_|_|.|_|_|_|_|.|_|_|_|
Health insurance reimbursement (A+B-C) (nett)	
Medical and non-medical out-of-pocket payments minus insurance reimbursements.	|_|_|.|_|_|_|_|.|_|_|_|

2nd Visit

Type of Healthcare Provider (check with history visit table)	|_|_|
Time before starting treatment (weeks): Please fill how many weeks before TB treatment is started from each provider visits *Note: the week calculation is 7 days = 1 week. The next calculation is done by calculating the days rounding down. For example, if time is 15 days then write 2 weeks, if time is 2 days then write 0 weeks.*	|_|_| weeks
Travel Time (hours): Time in hours of travel to and from healthcare facility	|_|_| hours, |_|_| minutes
Time spent for visit: Fill in hours for outpatient visits and hospitalizations	|_|_| hours, |_|_| minutes

Participant ID | | | | | | |

Out of pocket payment by patients, (total per visit in rupiah) (A) *Note:* *Fill in the number 0, if the patient accesses services and does not incur costs;* *Fill in the number 99, if the patient accesses services and does not know / forget.* *Fill in the number 98, if the patient does not access the service (not applicable).*		
	Hospitalized Cost (A1) Cost for daily hospitalization, only filled in when it is not included in the detailed costs related to consultation, radiography, etc.	|_|_|.|_|_|_|_|.|_|_|_|
	Consultation Cost (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	|_|_|.|_|_|_|_|.|_|_|_|
	Radiography and other imaging (A3) Out of pocket payments for radiography investigation (x-rays, CT-scan, ultrasound), TB specific or other	|_|_|.|_|_|_|_|.|_|_|_|
	Laboratory investigation cost (A4) Out of pocket payments for all tests, TB specific or others	|_|_|.|_|_|_|_|.|_|_|_|
	Other procedures (A5) Out of pocket payments for biopsy, bronchial lavage, etc. But not for unrelated TB surgery.	|_|_|.|_|_|_|_|.|_|_|_|
	Medicine fee (A6) Any medicine (TB or other) prescribed before TB was diagnosed under NTP regulation	|_|_|.|_|_|_|_|.|_|_|_|
	Total of medical cost (∑A1-6)	|_|_|.|_|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in Total per Visit) (B)		
	Travel (B1) Travel Cost to the facility (does not include income loss), for both patient and any household member.	|_|_|.|_|_|_|_|.|_|_|_|

	Food (during outpatient and inpatient care) (B2) Cost for additional food which was bought in relation to travel for the healthcare visits, and during outpatient or inpatient care, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Accommodation/ renting room (B3) Cost related to renting a room/bed during healthcare visits, and any other non-medical payments related to healthcare visits, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Nutritional supplement (B4) Any other treatments, such as nutritional supplements which are medically indicated	|_|_|.|_|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket (Total) (∑B1-4)	|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per Visit (A+B) (gross)		
Direct payment which was made by individual to health-care providers at the time-of-service use, i.e., excluding prepayment for health services – for example in the form of taxes or specific insurance premiums or contributions. It is calculated as the sum of direct medical (A) and direct non-medical (B) costs. If patient cannot remember the details of costs above, ask for the total out-of-pocket payments of the visit, hospitalization. **Total of out-of-pocket payment (∑A1-6) + (∑B1-4)**		|_|_|.|_|_|_|_|.|_|_|_|
Health insurance reimbursement (C)		
Amount that has reimbursed to patient through health insurance (private or social security), does not include expected future reimbursement		|_|_|.|_|_|_|_|.|_|_|_|
Health insurance reimbursement (A+B-C) (nett)		
Medical and non-medical out-of-pocket payments minus insurance reimbursements.		|_|_|.|_|_|_|_|.|_|_|_|

Participant ID | | | | | | |

3rd Visit	
Type of Healthcare Provider (check with history visit table)	| _ | _ |
Time before starting treatment (weeks): Please fill how many weeks before TB treatment is started from each provider visits *Note: the week calculation is 7 days = 1 week. The next calculation is done by calculating the days rounding down. For example, if time is 15 days then write 2 weeks, if time is 2 days then write 0 weeks.*	| _ | _ | weeks
Travel Time (hours): Time in hours of travel to and from healthcare facility	| _ | _ | hours, | _ | _ | minutes
Time spent for visit: Fill in hours for outpatient visits and hospitalizations	| _ | _ | hours, | _ | _ | minutes
Out of pocket payment by patients, (total per visit in rupiah) (A) *Note:* *Fill in the number 0, if the patient accesses services and does not incur costs;* *Fill in the number 99, if the patient accesses services and does not know / forget.* *Fill in the number 98, if the patient does not access the service (not applicable).*	
Hospitalized Cost (A1) Cost for daily hospitalization, only filled in when it is not included in the detailed costs related to consultation, radiography, etc.	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Consultation Cost (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Radiography and other imaging (A3) Out of pocket payments for radiography investigation (x-rays, CT-scan, ultrasound), TB specific or other	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Laboratory investigation cost (A4) Out of pocket payments for all tests, TB specific or others	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |

	Other procedures (A5) Out of pocket payments for biopsy, bronchial lavage, etc. But not for unrelated TB surgery.	|_|_|.|_|_|_|.|_|_|_|
	Medicine fee (A6) Any medicine (TB or other) prescribed before TB was diagnosed under NTP regulation	|_|_|.|_|_|_|.|_|_|_|
	Total of medical cost (∑A1-6)	|_|_|.|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in Total per Visit) (B)		
	Travel (B1) Travel Cost to the facility (does not include income loss), for both patient and any household member.	|_|_|.|_|_|_|.|_|_|_|
	Food (during outpatient and inpatient care) (B2) Cost for additional food which was bought in relation to travel for the healthcare visits, and during outpatient or inpatient care, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Accommodation/ renting room (B3) Cost related to renting a room/bed during healthcare visits, and any other non-medical payments related to healthcare visits, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Nutritional supplement (B4) Any other treatments, such as nutritional supplements which are medically indicated	|_|_|.|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket (Total) (∑B1-4)	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per Visit (A+B) (gross)		

Direct payment which was made by individual to health-care providers at the time-of-service use, i.e., excluding prepayment for health services – for example in the form of taxes or specific insurance premiums or contributions. It is calculated as the sum of direct medical (A) and direct non-medical (B) costs. If patient cannot remember the details of costs above, ask for the total out-of-pocket payments of the visit, hospitalization. **Total of out-of-pocket payment (∑A1-6) + (∑B1-4)**	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Health insurance reimbursement (C)	
Amount that has reimbursed to patient through health insurance (private or social security), does not include expected future reimbursement	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Health insurance reimbursement (A+B-C) (nett)	
Medical and non-medical out-of-pocket payments minus insurance reimbursements.	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |

4th Visit	
Type of Healthcare Provider (check with history visit table)	| _ | _ |
Time before starting treatment (weeks): Please fill how many weeks before TB treatment is started from each provider visits *Note: the week calculation is 7 days = 1 week. The next calculation is done by calculating the days rounding down. For example, if time is 15 days then write 2 weeks, if time is 2 days then write 0 weeks.*	| _ | _ | weeks
Travel Time (hours): Time in hours of travel to and from healthcare facility	| _ | _ | hours, | _ | _ | minutes
Time spent for visit: Fill in hours for outpatient visits and hospitalizations	| _ | _ | hours, | _ | _ | minutes

Out of pocket payment by patients, (total per visit in rupiah) (A) *Note:* *Fill in the number 0, if the patient accesses services and does not incur costs;* *Fill in the number 99, if the patient accesses services and does not know / forget.* *Fill in the number 98, if the patient does not access the service (not applicable).*		
	Hospitalized Cost (A1) Cost for daily hospitalization, only filled in when it is not included in the detailed costs related to consultation, radiography, etc.	_ _ _ . _ _ _ . _ _ _ . _ _ _
	Consultation Cost (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	_ _ _ . _ _ _ . _ _ _ . _ _ _
	Radiography and other imaging (A3) Out of pocket payments for radiography investigation (x-rays, CT-scan, ultrasound), TB specific or other	_ _ _ . _ _ _ . _ _ _ . _ _ _
	Laboratory investigation cost (A4) Out of pocket payments for all tests, TB specific or others	_ _ _ . _ _ _ . _ _ _ . _ _ _
	Other procedures (A5) Out of pocket payments for biopsy, bronchial lavage, etc. But not for unrelated TB surgery.	_ _ _ . _ _ _ . _ _ _ . _ _ _
	Medicine fee (A6) Any medicine (TB or other) prescribed before TB was diagnosed under NTP regulation	_ _ _ . _ _ _ . _ _ _ . _ _ _
	Total of medical cost (∑A1-6)	_ _ _ . _ _ _ . _ _ _ . _ _ _
Non-medical Out-of-Pocket Payment (in Total per Visit) (B)		
	Travel (B1) Travel Cost to the facility (does not include income loss), for both patient and any household member.	_ _ _ . _ _ _ . _ _ _ . _ _ _

	Food (during outpatient and inpatient care) (B2) Cost for additional food which was bought in relation to travel for the healthcare visits, and during outpatient or inpatient care, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Accommodation/ renting room (B3) Cost related to renting a room/bed during healthcare visits, and any other non-medical payments related to healthcare visits, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Nutritional supplement (B4) Any other treatments, such as nutritional supplements which are medically indicated	|_|_|.|_|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket (Total) (∑B1-4)	|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per Visit (A+B) (gross)		
Direct payment which was made by individual to health-care providers at the time-of-service use, i.e., excluding prepayment for health services – for example in the form of taxes or specific insurance premiums or contributions. It is calculated as the sum of direct medical (A) and direct non-medical (B) costs. If patient cannot remember the details of costs above, ask for the total out-of-pocket payments of the visit, hospitalization. **Total of out-of-pocket payment (∑A1-6) + (∑B1-4)**		|_|_|.|_|_|_|_|.|_|_|_|
Health insurance reimbursement (C)		
Amount that has reimbursed to patient through health insurance (private or social security), does not include expected future reimbursement		|_|_|.|_|_|_|_|.|_|_|_|
Health insurance reimbursement (A+B-C) (nett)		
Medical and non-medical out-of-pocket payments minus insurance reimbursements.		|_|_|.|_|_|_|_|.|_|_|_|

Participant ID ☐☐ ☐☐ ☐☐

5th Visit	
Type of Healthcare Provider (check with history visit table)	| _ | _ |
Time before starting treatment (weeks): Please fill how many weeks before TB treatment is started from each provider visits *Note: the week calculation is 7 days = 1 week. The next calculation is done by calculating the days rounding down. For example, if time is 15 days then write 2 weeks, if time is 2 days then write 0 weeks.*	| _ | _ | weeks
Travel Time (hours): Time in hours of travel to and from healthcare facility	| _ | _ | hours, | _ | _ | minutes
Time spent for visit: Fill in hours for outpatient visits and hospitalizations	| _ | _ | hours, | _ | _ | minutes
Out of pocket payment by patients, (total per visit in rupiah) (A) *Note:* *Fill in the number 0, if the patient accesses services and does not incur costs;* *Fill in the number 99, if the patient accesses services and does not know / forget.* *Fill in the number 98, if the patient does not access the service (not applicable).*	
Hospitalized Cost (A1) Cost for daily hospitalization, only filled in when it is not included in the detailed costs related to consultation, radiography, etc.	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Consultation Cost (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Radiography and other imaging (A3) Out of pocket payments for radiography investigation (x-rays, CT-scan, ultrasound), TB specific or other	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Laboratory investigation cost (A4) Out of pocket payments for all tests, TB specific or others	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |

	Other procedures (A5) Out of pocket payments for biopsy, bronchial lavage, etc. But not for unrelated TB surgery.	|_|_|.|_|_|_|.|_|_|_|
	Medicine fee (A6) Any medicine (TB or other) prescribed before TB was diagnosed under NTP regulation	|_|_|.|_|_|_|.|_|_|_|
	Total of medical cost (∑A1-6)	|_|_|.|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in Total per Visit) (B)		
	Travel (B1) Travel Cost to the facility (does not include income loss), for both patient and any household member.	|_|_|.|_|_|_|.|_|_|_|
	Food (during outpatient and inpatient care) (B2) Cost for additional food which was bought in relation to travel for the healthcare visits, and during outpatient or inpatient care, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Accommodation/ renting room (B3) Cost related to renting a room/bed during healthcare visits, and any other non-medical payments related to healthcare visits, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Nutritional supplement (B4) Any other treatments, such as nutritional supplements which are medically indicated	|_|_|.|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket (Total) (∑B1-4)	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per Visit (A+B) (gross)		

Direct payment which was made by individual to health-care providers at the time-of-service use, i.e., excluding prepayment for health services – for example in the form of taxes or specific insurance premiums or contributions. It is calculated as the sum of direct medical (A) and direct non-medical (B) costs. If patient cannot remember the details of costs above, ask for the total out-of-pocket payments of the visit, hospitalization. **Total of out-of-pocket payment (∑A1-6) + (∑B1-4)**	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Health insurance reimbursement (C)	
Amount that has reimbursed to patient through health insurance (private or social security), does not include expected future reimbursement	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Health insurance reimbursement (A+B-C) (nett)	
Medical and non-medical out-of-pocket payments minus insurance reimbursements.	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |

6th Visit

Type of Healthcare Provider (check with history visit table)	| _ | _ |
Time before starting treatment (weeks): Please fill how many weeks before TB treatment is started from each provider visits *Note: the week calculation is 7 days = 1 week. The next calculation is done by calculating the days rounding down. For example, if time is 15 days then write 2 weeks, if time is 2 days then write 0 weeks.*	| _ | _ | weeks
Travel Time (hours): Time in hours of travel to and from healthcare facility	| _ | _ | hours, | _ | _ | minutes
Time spent for visit: Fill in hours for outpatient visits and hospitalizations	| _ | _ | hours, | _ | _ | minutes

Participant ID | | | | | | |

Out of pocket payment by patients, (total per visit in rupiah) (A) *Note:* *Fill in the number 0, if the patient accesses services and does not incur costs;* *Fill in the number 99, if the patient accesses services and does not know / forget.* *Fill in the number 98, if the patient does not access the service (not applicable).*		
	Hospitalized Cost (A1) Cost for daily hospitalization, only filled in when it is not included in the detailed costs related to consultation, radiography, etc.	|_|_|.|_|_|_|_|.|_|_|_|
	Consultation Cost (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	|_|_|.|_|_|_|_|.|_|_|_|
	Radiography and other imaging (A3) Out of pocket payments for radiography investigation (x-rays, CT-scan, ultrasound), TB specific or other	|_|_|.|_|_|_|_|.|_|_|_|
	Laboratory investigation cost (A4) Out of pocket payments for all tests, TB specific or others	|_|_|.|_|_|_|_|.|_|_|_|
	Other procedures (A5) Out of pocket payments for biopsy, bronchial lavage, etc. But not for unrelated TB surgery.	|_|_|.|_|_|_|_|.|_|_|_|
	Medicine fee (A6) Any medicine (TB or other) prescribed before TB was diagnosed under NTP regulation	|_|_|.|_|_|_|_|.|_|_|_|
	Total of medical cost (∑A1-6)	|_|_|.|_|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in Total per Visit) (B)		
	Travel (B1) Travel Cost to the facility (does not include income loss), for both patient and any household member.	|_|_|.|_|_|_|_|.|_|_|_|

	Food (during outpatient and inpatient care) (B2) Cost for additional food which was bought in relation to travel for the healthcare visits, and during outpatient or inpatient care, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Accommodation/ renting room (B3) Cost related to renting a room/bed during healthcare visits, and any other non-medical payments related to healthcare visits, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Nutritional supplement (B4) Any other treatments, such as nutritional supplements which are medically indicated	|_|_|.|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket (Total) (∑B1-4)	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per Visit (A+B) (gross)		
Direct payment which was made by individual to health-care providers at the time-of-service use, i.e., excluding prepayment for health services – for example in the form of taxes or specific insurance premiums or contributions. It is calculated as the sum of direct medical (A) and direct non-medical (B) costs. If patient cannot remember the details of costs above, ask for the total out-of-pocket payments of the visit, hospitalization. **Total of out-of-pocket payment (∑A1-6) + (∑B1-4)**		|_|_|.|_|_|_|.|_|_|_|
Health insurance reimbursement (C)		
Amount that has reimbursed to patient through health insurance (private or social security), does not include expected future reimbursement		|_|_|.|_|_|_|.|_|_|_|
Health insurance reimbursement (A+B-C) (nett)		
Medical and non-medical out-of-pocket payments minus insurance reimbursements.		|_|_|.|_|_|_|.|_|_|_|

Participant ID | | | | | | |

7th Visit	
Type of Healthcare Provider (check with history visit table)	| _ | _ |
Time before starting treatment (weeks): Please fill how many weeks before TB treatment is started from each provider visits *Note: the week calculation is 7 days = 1 week. The next calculation is done by calculating the days rounding down. For example, if time is 15 days then write 2 weeks, if time is 2 days then write 0 weeks.*	| _ | _ | weeks
Travel Time (hours): Time in hours of travel to and from healthcare facility	| _ | _ | hours, | _ | _ | minutes
Time spent for visit: Fill in hours for outpatient visits and hospitalizations	| _ | _ | hours, | _ | _ | minutes
Out of pocket payment by patients, (total per visit in rupiah) (A) *Note:* *Fill in the number 0, if the patient accesses services and does not incur costs;* *Fill in the number 99, if the patient accesses services and does not know / forget.* *Fill in the number 98, if the patient does not access the service (not applicable).*	
Hospitalized Cost (A1) Cost for daily hospitalization, only filled in when it is not included in the detailed costs related to consultation, radiography, etc.	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Consultation Cost (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Radiography and other imaging (A3) Out of pocket payments for radiography investigation (x-rays, CT-scan, ultrasound), TB specific or other	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Laboratory investigation cost (A4) Out of pocket payments for all tests, TB specific or others	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |

	Other procedures (A5) Out of pocket payments for biopsy, bronchial lavage, etc. But not for unrelated TB surgery.	|_|_|.|_|_|_|.|_|_|_|
	Medicine fee (A6) Any medicine (TB or other) prescribed before TB was diagnosed under NTP regulation	|_|_|.|_|_|_|.|_|_|_|
	Total of medical cost (∑A1-6)	|_|_|.|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in Total per Visit) (B)		
	Travel (B1) Travel Cost to the facility (does not include income loss), for both patient and any household member.	|_|_|.|_|_|_|.|_|_|_|
	Food (during outpatient and inpatient care) (B2) Cost for additional food which was bought in relation to travel for the healthcare visits, and during outpatient or inpatient care, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Accommodation/ renting room (B3) Cost related to renting a room/bed during healthcare visits, and any other non-medical payments related to healthcare visits, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Nutritional supplement (B4) Any other treatments, such as nutritional supplements which are medically indicated	|_|_|.|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket (Total) (∑B1-4)	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per Visit (A+B) (gross)		

Direct payment which was made by individual to health-care providers at the time-of-service use, i.e., excluding prepayment for health services – for example in the form of taxes or specific insurance premiums or contributions. It is calculated as the sum of direct medical (A) and direct non-medical (B) costs. If patient cannot remember the details of costs above, ask for the total out-of-pocket payments of the visit, hospitalization. **Total of out-of-pocket payment (∑A1-6) + (∑B1-4)**	|_|_|.|_|_|_|_|.|_|_|_|
Health insurance reimbursement (C)	
Amount that has reimbursed to patient through health insurance (private or social security), does not include expected future reimbursement	|_|_|.|_|_|_|_|.|_|_|_|
Health insurance reimbursement (A+B-C) (nett)	
Medical and non-medical out-of-pocket payments minus insurance reimbursements.	|_|_|.|_|_|_|_|.|_|_|_|

Participant ID ☐☐ ☐☐ ☐☐

FOR ALL PATIENTS

Part V. Cost during current DS-TB/DR-TB treatment

Unless specified, this section refers to the patient's current treatment phase only

37. Have you previously been hospitalized during your current TB treatment phase due to this disease?

1. Yes
2. No

|_|

Notes:

1. *Just focus on the hospitalization during the current treatment phase*
2. *Do not include hospitalization on before the current TB treatment started*
3. *For new cases, hospitalizations prior to TB treatment started should be filled in part IV*
4. *If the answer is "No", go to no. 39*

38. Approximately, how much cost and time did you spend for each of these hospitalization/inpatient care?

1st Hospitalization	
Type of Healthcare Facility: 1. Public primary healthcare centre 2. Public hospital 3. Private hospital 4. Private clinic (specialistic) 5. Private Primary health care (GP) 6. Private practitioner 7. Other, Specify	|_|
Number of hospitalized days Inpatient admission, fill in systematically according treatment history.	|_|_|days

Participant ID | | | | | | |

	Travel Time (hours and minutes) Time in hours and minutes for traveling to and from healthcare facility	| _ | _ |hours, | _ | _ | minutes
Out-of-pocket payment for Medical Services (in Total per hospitalization care in rupiah) (A) *Notes: fill in with 0, if patient accessed the services but didn't pay anything;* *Fill in with 99, if patient accessed the services but but doesn't know/forget.* *Fill in with 98, if patient didn't access any services (not applicable).*		
	Daily Accommodation Services Cost (in total during hospitalization) (A1) Total fees for hospitalization period. Only to be filled if not covered by the cost items below:	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
	Consultation Cost (in total during hospitalization) (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
	Radiography and other imaging (in total during hospitalization) (A3) Examination with digital imaging (x-rays, CT-scan, ultrasound), TB-specific or other	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
	Laboratory Investigation Cost including sample taking cost (in total during hospitalization) (A4) All examinations, TB-Specific, and other, including sample taking cost, if paid by patient	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
	Other Procedures, including surgery, biopsy, etc. (in total during hospitalization) (A5) Including biopsy, bronchial lavage, etc. But not for unrelated TB surgery	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
	TB-Medicines (in total during hospitalization) (A6) TB related medicines cost which bought inside or outside hospital	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
	Other Medicine, Including nutritional supplements (in total during hospitalization) (A7) including nutritional supplement: other medicine, such as nutritional supplements	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |

	Medical cost (Total) ∑A1-7	|_|_|.|_|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in total per hospitalization care in rupiah) (B)		
	Travel (in total during hospitalization) (B1) Out-of-pocket payments for travel to the facility, for both patient and any household member.	|_|_|.|_|_|_|_|.|_|_|_|
	Food (in total during hospitalization) (B2) Out-of-pocket payments for additional food which was bought during travel for the healthcare visit, and during visit or hospitalization, for both patient and any household members	|_|_|.|_|_|_|_|.|_|_|_|
	Other (linen, soap, other services & administration Expenses) (in total during hospitalization) (B3) Out-of-pocket payments related to renting a room/bed during healthcare visits, and any other non-medical payments related to health care visit, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket Payment (Total) ∑B1-3	|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B) (gross) (in rupiah)		
Sum of medical and non-medical out-of-pocket payments. If patient cannot remember the details of costs above or she/he has hospital bill for all those costs, ask for the total out-of-pocket payments of the hospitalization care. **Total of Out-of-Pocket Payment (∑A1-7) + (∑B1-4)**		|_|_|.|_|_|_|_|.|_|_|_|
Health Insurance Reimbursement (C) (in rupiah)		
Amount that has reimbursed to patient until this time, does not include expected future reimbursement		|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B-C) (Nett) (in rupiah)		
Medical and non-medical out-of-pocket payments minus insurance reimbursements.		|_|_|.|_|_|_|_|.|_|_|_|

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2nd Hospitalization

Type of Healthcare Facility: 1. Public primary healthcare centre 2. Public hospital 3. Private hospital 4. Private clinic (specialistic) 5. Private Primary health care (GP) 6. Private practitioner 7. Other, Specify	| _ |
Number of hospitalized days Inpatient admission, fill in systematically according treatment history.	| _ | _ |days
Travel Time (hours and minutes) Time in hours and minutes for traveling to and from healthcare facility	| _ | _ |hours, | _ | _ | minutes
Out-of-pocket payment for Medical Services (in Total per hospitalization care in rupiah) (A) *Notes: fill in with 0, if patient accessed the services but didn't pay anything;* *Fill in with 99, if patient accessed the services but but doesn't know/forget.* *Fill in with 98, if patient didn't access any services (not applicable).*	
Daily Accommodation Services Cost (in total during hospitalization) (A1) Total fees for hospitalization period. Only to be filled if not covered by the cost items below:	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Consultation Cost (in total during hospitalization) (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Radiography and other imaging (in total during hospitalization) (A3) Examination with digital imaging (x-rays, CT-scan, ultrasound), TB-specific or other	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Laboratory Investigation Cost including sample taking cost (in total during hospitalization) (A4) All examinations, TB-Specific, and other, including sample taking cost, if paid by patient	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |

	Other Procedures, including surgery, biopsy, etc. (in total during hospitalization) (A5) Including biopsy, bronchial lavage, etc. But not for unrelated TB surgery	|_|_|.|_|_|_|.|_|_|_|
	TB-Medicines (in total during hospitalization) (A6) TB related medicines cost which bought inside or outside hospital	|_|_|.|_|_|_|.|_|_|_|
	Other Medicine, Including nutritional supplements (in total during hospitalization) (A7) including nutritional supplement: other medicine, such as nutritional supplements	|_|_|.|_|_|_|.|_|_|_|
	Medical cost (Total) ∑A1-7	|_|_|.|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in total per hospitalization care in rupiah) (B)		
	Travel (in total during hospitalization) (B1) Out-of-pocket payments for travel to the facility, for both patient and any household member.	|_|_|.|_|_|_|.|_|_|_|
	Food (in total during hospitalization) (B2) Out-of-pocket payments for additional food which was bought during travel for the healthcare visit, and during visit or hospitalization, for both patient and any household members	|_|_|.|_|_|_|.|_|_|_|
	Other (linen, soap, other services & administration Expenses) (in total during hospitalization) (B3) Out-of-pocket payments related to renting a room/bed during healthcare visits, and any other non-medical payments related to health care visit, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket Payment (Total) ∑B1-3	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B) (gross) (in rupiah)		

Sum of medical and non-medical out-of-pocket payments. If patient cannot remember the details of costs above or she/ he has hospital bill for all those costs, ask for the total out-of-pocket payments of the hospitalization care. **Total of Out-of-Pocket Payment (∑A1-7) + (∑B1-4)**	|_|_|.|_|_|_|_|.|_|_|_|
Health Insurance Reimbursement (C) (in rupiah)	
Amount that has reimbursed to patient until this time, does not include expected future reimbursement	|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B-C) (Nett) (in rupiah)	
Medical and non-medical out-of-pocket payments minus insurance reimbursements.	|_|_|.|_|_|_|_|.|_|_|_|

3rd Hospitalization

Type of Healthcare Facility: 1. Public primary healthcare centre 2. Public hospital 3. Private hospital 4. Private clinic (specialistic) 5. Private Primary health care (GP) 6. Private practitioner 7. Other, Specify	|_|
Number of hospitalized days Inpatient admission, fill in systematically according treatment history.	|_|_|days
Travel Time (hours and minutes) Time in hours and minutes for traveling to and from healthcare facility	|_|_|hours, |_|_| minutes

Out-of-pocket payment for Medical Services (in Total per hospitalization care in rupiah) (A) *Notes: fill in with 0, if patient accessed the services but didn't pay anything;* *Fill in with 99, if patient accessed the services but but doesn't know/forget.* *Fill in with 98, if patient didn't access any services (not applicable).*		
	Daily Accommodation Services Cost (in total during hospitalization) (A1) Total fees for hospitalization period. Only to be filled if not covered by the cost items below:	|_|_|.|_|_|_|_|.|_|_|_|
	Consultation Cost (in total during hospitalization) (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	|_|_|.|_|_|_|_|.|_|_|_|
	Radiography and other imaging (in total during hospitalization) (A3) Examination with digital imaging (x-rays, CT-scan, ultrasound), TB-specific or other	|_|_|.|_|_|_|_|.|_|_|_|
	Laboratory Investigation Cost including sample taking cost (in total during hospitalization) (A4) All examinations, TB-Specific, and other, including sample taking cost, if paid by patient	|_|_|.|_|_|_|_|.|_|_|_|
	Other Procedures, including surgery, biopsy, etc. (in total during hospitalization) (A5) Including biopsy, bronchial lavage, etc. But not for unrelated TB surgery	|_|_|.|_|_|_|_|.|_|_|_|
	TB-Medicines (in total during hospitalization) (A6) TB related medicines cost which bought inside or outside hospital	|_|_|.|_|_|_|_|.|_|_|_|
	Other Medicine, Including nutritional supplements (in total during hospitalization) (A7) including nutritional supplement: other medicine, such as nutritional supplements	|_|_|.|_|_|_|_|.|_|_|_|
	Medical cost (Total) ∑A1-7	|_|_|.|_|_|_|_|.|_|_|_|

Non-medical Out-of-Pocket Payment (in total per hospitalization care in rupiah) (B)		
	Travel (in total during hospitalization) (B1) Out-of-pocket payments for travel to the facility, for both patient and any household member.	|_|_|.|_|_|_|_|.|_|_|_|
	Food (in total during hospitalization) (B2) Out-of-pocket payments for additional food which was bought during travel for the healthcare visit, and during visit or hospitalization, for both patient and any household members	|_|_|.|_|_|_|_|.|_|_|_|
	Other (linen, soap, other services & administration Expenses) (in total during hospitalization) (B3) Out-of-pocket payments related to renting a room/bed during healthcare visits, and any other non-medical payments related to health care visit, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket Payment (Total) ∑B1-3	|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B) (gross) (in rupiah)		
Sum of medical and non-medical out-of-pocket payments. If patient cannot remember the details of costs above or she/he has hospital bill for all those costs, ask for the total out-of-pocket payments of the hospitalization care. **Total of Out-of-Pocket Payment (∑A1-7) + (∑B1-4)**		|_|_|.|_|_|_|_|.|_|_|_|
Health Insurance Reimbursement (C) (in rupiah)		
Amount that has reimbursed to patient until this time, does not include expected future reimbursement		|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B-C) (Nett) (in rupiah)		
Medical and non-medical out-of-pocket payments minus insurance reimbursements.		|_|_|.|_|_|_|_|.|_|_|_|

Participant ID ☐☐ ☐☐ ☐☐

4th Hospitalization

Type of Healthcare Facility: 1. Public primary healthcare centre 2. Public hospital 3. Private hospital 4. Private clinic (specialistic) 5. Private Primary health care (GP) 6. Private practitioner 7. Other, Specify	| _ |
Number of hospitalized days Inpatient admission, fill in systematically according treatment history.	| _ | _ |days
Travel Time (hours and minutes) Time in hours and minutes for traveling to and from healthcare facility	| _ | _ |hours, | _ | _ | minutes
Out-of-pocket payment for Medical Services (in Total per hospitalization care in rupiah) (A) *Notes: fill in with 0, if patient accessed the services but didn't pay anything;* *Fill in with 99, if patient accessed the services but but doesn't know/forget.* *Fill in with 98, if patient didn't access any services (not applicable).*	
Daily Accommodation Services Cost (in total during hospitalization) (A1) Total fees for hospitalization period. Only to be filled if not covered by the cost items below:	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Consultation Cost (in total during hospitalization) (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Radiography and other imaging (in total during hospitalization) (A3) Examination with digital imaging (x-rays, CT-scan, ultrasound), TB-specific or other	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |
Laboratory Investigation Cost including sample taking cost (in total during hospitalization) (A4) All examinations, TB-Specific, and other, including sample taking cost, if paid by patient	| _ | _ |.| _ | _ | _ |.| _ | _ | _ |

	Other Procedures, including surgery, biopsy, etc. (in total during hospitalization) (A5) Including biopsy, bronchial lavage, etc. But not for unrelated TB surgery	|_|_|.|_|_|_|_|.|_|_|_|
	TB-Medicines (in total during hospitalization) (A6) TB related medicines cost which bought inside or outside hospital	|_|_|.|_|_|_|_|.|_|_|_|
	Other Medicine, Including nutritional supplements (in total during hospitalization) (A7) including nutritional supplement: other medicine, such as nutritional supplements	|_|_|.|_|_|_|_|.|_|_|_|
	Medical cost (Total) ∑A1-7	|_|_|.|_|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in total per hospitalization care in rupiah) (B)		
	Travel (in total during hospitalization) (B1) Out-of-pocket payments for travel to the facility, for both patient and any household member.	|_|_|.|_|_|_|_|.|_|_|_|
	Food (in total during hospitalization) (B2) Out-of-pocket payments for additional food which was bought during travel for the healthcare visit, and during visit or hospitalization, for both patient and any household members	|_|_|.|_|_|_|_|.|_|_|_|
	Other (linen, soap, other services & administration Expenses) (in total during hospitalization) (B3) Out-of-pocket payments related to renting a room/bed during healthcare visits, and any other non-medical payments related to health care visit, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket Payment (Total) ∑B1-3	|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B) (gross) (in rupiah)		

Sum of medical and non-medical out-of-pocket payments. If patient cannot remember the details of costs above or she/ he has hospital bill for all those costs, ask for the total out-of-pocket payments of the hospitalization care. **Total of Out-of-Pocket Payment (∑A1-7) + (∑B1-4)**	|_|_|.|_|_|_|.|_|_|_|
Health Insurance Reimbursement (C) (in rupiah)	
Amount that has reimbursed to patient until this time, does not include expected future reimbursement	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B-C) (Nett) (in rupiah)	
Medical and non-medical out-of-pocket payments minus insurance reimbursements.	|_|_|.|_|_|_|.|_|_|_|

5th Hospitalization

Type of Healthcare Facility: 1. Public primary healthcare centre 2. Public hospital 3. Private hospital 4. Private clinic (specialistic) 5. Private Primary health care (GP) 6. Private practitioner 7. Other, Specify	|_|
Number of hospitalized days Inpatient admission, fill in systematically according treatment history.	|_|_|days
Travel Time (hours and minutes) Time in hours and minutes for traveling to and from healthcare facility	|_|_|hours, |_|_| minutes
Out-of-pocket payment for Medical Services (in Total per hospitalization care in rupiah) (A) *Notes: fill in with 0, if patient accessed the services but didn't pay anything;* *Fill in with 99, if patient accessed the services but but doesn't know/forget.* *Fill in with 98, if patient didn't access any services (not applicable).*	

	Daily Accommodation Services Cost (in total during hospitalization) (A1) Total fees for hospitalization period. Only to be filled if not covered by the cost items below:	|_|_|.|_|_|_|_|.|_|_|_|
	Consultation Cost (in total during hospitalization) (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	|_|_|.|_|_|_|_|.|_|_|_|
	Radiography and other imaging (in total during hospitalization) (A3) Examination with digital imaging (x-rays, CT-scan, ultrasound), TB-specific or other	|_|_|.|_|_|_|_|.|_|_|_|
	Laboratory Investigation Cost including sample taking cost (in total during hospitalization) (A4) All examinations, TB-Specific, and other, including sample taking cost, if paid by patient	|_|_|.|_|_|_|_|.|_|_|_|
	Other Procedures, including surgery, biopsy, etc. (in total during hospitalization) (A5) Including biopsy, bronchial lavage, etc. But not for unrelated TB surgery	|_|_|.|_|_|_|_|.|_|_|_|
	TB-Medicines (in total during hospitalization) (A6) TB related medicines cost which bought inside or outside hospital	|_|_|.|_|_|_|_|.|_|_|_|
	Other Medicine, Including nutritional supplements (in total during hospitalization) (A7) including nutritional supplement: other medicine, such as nutritional supplements	|_|_|.|_|_|_|_|.|_|_|_|
	Medical cost (Total) ∑A1-7	|_|_|.|_|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in total per hospitalization care in rupiah) (B)		
	Travel (in total during hospitalization) (B1) Out-of-pocket payments for travel to the facility, for both patient and any household member.	|_|_|.|_|_|_|_|.|_|_|_|

	Food (in total during hospitalization) (B2) Out-of-pocket payments for additional food which was bought during travel for the healthcare visit, and during visit or hospitalization, for both patient and any household members	|_|_|.|_|_|_|_|.|_|_|_|
	Other (linen, soap, other services & administration Expenses) (in total during hospitalization) (B3) Out-of-pocket payments related to renting a room/bed during healthcare visits, and any other non-medical payments related to health care visit, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket Payment (Total) ∑B1-3	|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B) (gross) (in rupiah)		
Sum of medical and non-medical out-of-pocket payments. If patient cannot remember the details of costs above or she/he has hospital bill for all those costs, ask for the total out-of-pocket payments of the hospitalization care. **Total of Out-of-Pocket Payment (∑A1-7) + (∑B1-4)**		|_|_|.|_|_|_|_|.|_|_|_|
Health Insurance Reimbursement (C) (in rupiah)		
Amount that has reimbursed to patient until this time, does not include expected future reimbursement		|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B-C) (Nett) (in rupiah)		
Medical and non-medical out-of-pocket payments minus insurance reimbursements.		|_|_|.|_|_|_|_|.|_|_|_|

Participant ID | | | | | | | |

6th Hospitalization

Type of Healthcare Facility: 1. Public primary healthcare centre 2. Public hospital 3. Private hospital 4. Private clinic (specialistic) 5. Private Primary health care (GP) 6. Private practitioner 7. Other, Specify	| _ |
Number of hospitalized days Inpatient admission, fill in systematically according treatment history.	| _ | _ |days
Travel Time (hours and minutes) Time in hours and minutes for traveling to and from healthcare facility	| _ | _ |hours, | _ | _ | minutes
Out-of-pocket payment for Medical Services (in Total per hospitalization care in rupiah) (A) *Notes: fill in with 0, if patient accessed the services but didn't pay anything;* *Fill in with 99, if patient accessed the services but but doesn't know/forget.* *Fill in with 98, if patient didn't access any services (not applicable).*	
Daily Accommodation Services Cost (in total during hospitalization) (A1) Total fees for hospitalization period. Only to be filled if not covered by the cost items below:	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Consultation Cost (in total during hospitalization) (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Radiography and other imaging (in total during hospitalization) (A3) Examination with digital imaging (x-rays, CT-scan, ultrasound), TB-specific or other	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |
Laboratory Investigation Cost including sample taking cost (in total during hospitalization) (A4) All examinations, TB-Specific, and other, including sample taking cost, if paid by patient	| _ | _ |.| _ | _ | _ | _ |.| _ | _ | _ |

	Other Procedures, including surgery, biopsy, etc. (in total during hospitalization) (A5) Including biopsy, bronchial lavage, etc. But not for unrelated TB surgery	|_|_|.|_|_|_|.|_|_|_|
	TB-Medicines (in total during hospitalization) (A6) TB related medicines cost which bought inside or outside hospital	|_|_|.|_|_|_|.|_|_|_|
	Other Medicine, Including nutritional supplements (in total during hospitalization) (A7) including nutritional supplement: other medicine, such as nutritional supplements	|_|_|.|_|_|_|.|_|_|_|
	Medical cost (Total) ∑A1-7	|_|_|.|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in total per hospitalization care in rupiah) (B)		
	Travel (in total during hospitalization) (B1) Out-of-pocket payments for travel to the facility, for both patient and any household member.	|_|_|.|_|_|_|.|_|_|_|
	Food (in total during hospitalization) (B2) Out-of-pocket payments for additional food which was bought during travel for the healthcare visit, and during visit or hospitalization, for both patient and any household members	|_|_|.|_|_|_|.|_|_|_|
	Other (linen, soap, other services & administration Expenses) (in total during hospitalization) (B3) Out-of-pocket payments related to renting a room/bed during healthcare visits, and any other non-medical payments related to health care visit, for both patient and any household members.	|_|_|.|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket Payment (Total) ∑B1-3	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B) (gross) (in rupiah)		

Sum of medical and non-medical out-of-pocket payments. If patient cannot remember the details of costs above or she/ he has hospital bill for all those costs, ask for the total out-of-pocket payments of the hospitalization care. **Total of Out-of-Pocket Payment (∑A1-7) + (∑B1-4)**	|_|_|.|_|_|_|.|_|_|_|
Health Insurance Reimbursement (C) (in rupiah)	
Amount that has reimbursed to patient until this time, does not include expected future reimbursement	|_|_|.|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B-C) (Nett) (in rupiah)	
Medical and non-medical out-of-pocket payments minus insurance reimbursements.	|_|_|.|_|_|_|.|_|_|_|

7th Hospitalization

Type of Healthcare Facility: 1. Public primary healthcare centre 2. Public hospital 3. Private hospital 4. Private clinic (specialistic) 5. Private Primary health care (GP) 6. Private practitioner 7. Other, Specify	|_|
Number of hospitalized days Inpatient admission, fill in systematically according treatment history.	|_|_|days
Travel Time (hours and minutes) Time in hours and minutes for traveling to and from healthcare facility	|_|_|hours, |_|_| minutes

Out-of-pocket payment for Medical Services (in Total per hospitalization care in rupiah) (A)

Notes: fill in with 0, if patient accessed the services but didn't pay anything;
Fill in with 99, if patient accessed the services but but doesn't know/forget.
Fill in with 98, if patient didn't access any services (not applicable).

	Daily Accommodation Services Cost (in total during hospitalization) (A1) Total fees for hospitalization period. Only to be filled if not covered by the cost items below:	|_|_|.|_|_|_|.|_|_|_|
	Consultation Cost (in total during hospitalization) (A2) Other consultation cost, which is not included from hospitalization, but including direct payment to healthcare worker	|_|_|.|_|_|_|.|_|_|_|
	Radiography and other imaging (in total during hospitalization) (A3) Examination with digital imaging (x-rays, CT-scan, ultrasound), TB-specific or other	|_|_|.|_|_|_|.|_|_|_|
	Laboratory Investigation Cost including sample taking cost (in total during hospitalization) (A4) All examinations, TB-Specific, and other, including sample taking cost, if paid by patient	|_|_|.|_|_|_|.|_|_|_|
	Other Procedures, including surgery, biopsy, etc. (in total during hospitalization) (A5) Including biopsy, bronchial lavage, etc. But not for unrelated TB surgery	|_|_|.|_|_|_|.|_|_|_|
	TB-Medicines (in total during hospitalization) (A6) TB related medicines cost which bought inside or outside hospital	|_|_|.|_|_|_|.|_|_|_|
	Other Medicine, Including nutritional supplements (in total during hospitalization) (A7) including nutritional supplement: other medicine, such as nutritional supplements	|_|_|.|_|_|_|.|_|_|_|
	Medical cost (Total) ∑A1-7	|_|_|.|_|_|_|.|_|_|_|
Non-medical Out-of-Pocket Payment (in total per hospitalization care in rupiah) (B)		
	Travel (in total during hospitalization) (B1) Out-of-pocket payments for travel to the facility, for both patient and any household member.	|_|_|.|_|_|_|.|_|_|_|

	Food (in total during hospitalization) (B2) Out-of-pocket payments for additional food which was bought during travel for the healthcare visit, and during visit or hospitalization, for both patient and any household members	|_|_|.|_|_|_|_|.|_|_|_|
	Other (linen, soap, other services & administration Expenses) (in total during hospitalization) (B3) Out-of-pocket payments related to renting a room/bed during healthcare visits, and any other non-medical payments related to health care visit, for both patient and any household members.	|_|_|.|_|_|_|_|.|_|_|_|
	Non-medical Out-of-Pocket Payment (Total) ∑B1-3	|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B) (gross) (in rupiah)		
Sum of medical and non-medical out-of-pocket payments. If patient cannot remember the details of costs above or she/ he has hospital bill for all those costs, ask for the total out-of-pocket payments of the hospitalization care. **Total of Out-of-Pocket Payment (∑A1-7) + (∑B1-4)**		|_|_|.|_|_|_|_|.|_|_|_|
Health Insurance Reimbursement (C) (in rupiah)		
Amount that has reimbursed to patient until this time, does not include expected future reimbursement		|_|_|.|_|_|_|_|.|_|_|_|
Out-of-pocket payment per hospitalization (A+B-C) (Nett) (in rupiah)		
Medical and non-medical out-of-pocket payments minus insurance reimbursements.		|_|_|.|_|_|_|_|.|_|_|_|

LIST OF SAMPLED FACILITIES

1. Public Sector

NO	PROVINCE	DISTRIC	SAMPLED FACILITIES
1	Aceh	Aceh Jaya	Puskesmas Lamno Puskesmas Pasie Raya Puskesmas Teunom Puskesmas Patek Puskesmas Indra Jaya Puskesmas Panga
2	Riau	Kota Pekanbaru	Puskesmas Garuda Puskesmas Rejosari Puskesmas Sidomulyo RSUD Arifin Achmad
		Rokan Hilir	Puskesmas Bagansiapiapi Puskesmas Bagan Batu
3	Sumatera Barat	Kota Pariaman	Puskesmas Pariaman Puskesmas Air Santok Puskesmas Naras Puskesmas Kp Baru Padusunan Puskesmas Sikapak
4	Sumatera Utara	Deli Serdang	Puskesmas Tanjung Morawa Puskesmas Mulyorejo
		Mandailing Natal	Puskesmas Panyabungan Jae Puskesmas Siabu
5	Banten	Kota Tangerang Selatan	Puskesmas Jombang Puskesmas Bambu Apus
		Tangerang	Puskesmas Cikupa Puskesmas Kutabumi

6	DKI Jakarta	Kota ADM Jakarta Barat	Puskesmas Kec. Kembangan Puskesmas Kec. Kebon Jeruk Puskesmas Kec. Tambora Puskesmas Kec. Cengkareng Puskesmas Kec. Kalideres
		Kota ADM Jakarta Selatan	Puskesmas Kec. Pesanggrahan Puskesmas Kec. Kebayoran Lama
		Kota ADM Jakarta Timur	Puskesmas Kec. Ciracas Puskesmas Kec. Cipayung Puskesmas Kec. Kramat Jati Puskesmas Kec. Pulo Gadung
7	Jawa Barat	Bogor	RS Paru Dr. M. Goenawan Partowidigdo Puskesmas Cimandala Puskesmas Cileungsi
		Kota Bandung	Puskesmas Garuda Puskesmas Puter Puskesmas Babakan Sari Puskesmas Babakan Surabaya Puskesmas Ujung Berung Indah Puskesmas Sekejati BBKPM
		Kota Bekasi	Puskesmas Jati Asih Puskesmas Jatirahayu Puskesmas Pejuang Puskesmas Aren Jaya Puskesmas Karangkitri Puskesmas Pengasinan Puskesmas Jatiwarna Puskesmas Teluk Pucung Puskesmas Kaliabang Tengah
8	Jawa Tengah	Cilacap	Puskesmas Cilacap Sel. I Puskesmas Kawunganten
		Kota Semarang	Puskesmas Bulu Lor Puskesmas Candilama Puskesmas Kedung Mundu

9	Jawa Timur	Jombang	Puskesmas Bandar Kedung Mulyo Puskesmas Cukir Puskesmas Brambang Puskesmas Mojowarno Puskesmas Japanan Puskesmas Bareng Puskesmas Wonosalam Puskesmas Mojoagung Puskesmas Gambiran Puskesmas Jogoloyo Puskesmas Mayangan Puskesmas Dukuh Klopo Puskesmas Jelakombo Puskesmas Jabon Puskesmas Tambakrejo Puskesmas Tembelang Puskesmas Jatiwates Puskesmas Tapen Puskesmas Kabuh
		Madiun	Puskesmas Gantrung Puskesmas Geger Puskesmas Wonoasri Puskesmas Kebonsari Puskesmas Bangunsari Puskesmas Mojopurno Puskesmas Kaibon Puskesmas Dagangan
		Tuban	Puskesmas Sumurgung Puskesmas Tuban Puskesmas Jenu
10	Maluku	Kota Ambon	Puskesmas Rijali Puskesmas Ch.M.Tiahahu Puskesmas Nania RS Umum Dr. M. Haulussy Ambon
11	Nusa Tenggara Timur	Malaka	Puskesmas Weliman Puskesmas Betun Puskesmas Fahiluka Puskesmas Namfalus

12	Sulawesi Selatan	Kota Makassar	Puskesmas Bara-Baraya Puskesmas Kaluku Bodoa Puskesmas Rappokalling RS Umum Daerah Labuang Baji
		Sidenreng Rappang	Puskesmas Bilokka Puskesmas Lawawoi Puskesmas Rappang
13	Sulawesi Tengah	Sigi	Puskesmas Kaleke Puskesmas Dolo Puskesmas Biromaru
14	Sulawesi Tenggara	Buton Utara	Puskesmas Kioko Puskesmas Labaraga Puskesmas Kulisusu Puskesmas Bone Rombo Puskesmas Lambale Puskesmas Waode Buri Puskesmas Lakansai RS Umum Daerah Kabupaten Buton Utara

2. Private Sector

NO	PROVINCE	DISTRIC	SAMPLED FACILITIES
1	Sumatera Utara	Deli Serdang	Klinik Romana RS Umum Daerah Deli Serdang RS Umum Sembiring Deli Tua RS Umum Hidayah RS Umum Citra Medika RS Umum Mitra Medika RS Umum Grand Medistra Lubuk Pakam RS Umum Full Bethesda Klinik Dafina Klinik Tutun Sehati Klinik Zaskia Husada
2	Jawa Tengah	Kota Semarang	RS Umum Panti Wilasa Citarum RS Umum Panti Wilasa II RS Umum Pusat Dr. Kariadi dr Budi Laksono dr Dewi Puspita dr Novita MSi SpA

Center for Tropical Medicine
Universitas Gadjah Mada

Center for Tropical Medicine
Faculty of Medicine, Public Health and Nursing (FK-KMK)
Gadjah Mada University

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