National Center for Child Health and Development (National Research and Development Agency)

https://www.ncchd.go.jp/

1. Summary of operations implemented using FILP funds

The NCCHD develops hospital facilities or medical machines to provide medical services related to intractable, genital and other diseases of mothers, fathers, babies and infants for which special medical services are required to ensure that children are born and grow up safe and sound (hereinafter referred to as "growth-related diseases").
(Reference) Operations other than those subject to FILP include surveys, research and technology development related to the abovementioned medical services and training of technicians related closely to these operations.

2. Amount of lending under FY2022 FILP

(Unit: billion yen)

FY2022 FILP	Estimated outstanding amount of FILP lending at the end of FY2021
1.0	9.4

3. Estimated policy cost analysis of the project

(1) Policy cost (Unit: billion yen)

Category	FY2021	FY2022	Fluctuation
1. Government expenditure (subsidies, etc.)	3.2	3.8	+0.6
2. Government revenue (payments to the government, etc.)*1	-2.0	-	+2.0
3. Opportunity cost of capital investments, etc.	23.1	11.1	-12.0
Total (1+2+3=policy cost(A))	**24.4**	**14.9**	**-9.4**
Analysis period (years)	16 years	16 years	-

(2) Breakdown of policy cost by the time of the provision of funds (Unit: billion yen)

Category	FY2021	FY2022	Fluctuation
(A) Policy cost (previously cited)	24.4	14.9	-9.4
1) Opportunity cost of capital investments, etc. provided before the beginning of the analysis period	1.3	1.7	+0.4
2) Policy cost expected to be newly accrued during the analysis period	23.1	13.2	-9.9
Government expenditure (subsidies, etc.)	3.2	3.8	+0.6
Government revenue (payments to the government, etc.)*1	-2.0	-	+2.0
Opportunity cost of surplus, etc.	21.8	9.4	-12.4
Opportunity cost of capital investments, etc.	-	-	-

(3) Year-to-Year comparison analysis
(Computing any fluctuation from previous year) (Unit: billion yen)

		FY2021	FY2022	Simple fluctuation
Policy cost	Simple comparison (before adjustment)	24.4	14.9	-9.4
	Past year comparison (after adjustment)	1) Adjusting initial years (Analysis results after adjusting initial year to that for FY2022 analysis)	2) Adjusting assumed interest rates (Analysis results of re-estimation using assumed interest rate for FY2021)	Real fluctuation (2-1)
		22.6	14.6	-8.0

[Real fluctuation factor analysis]

○Factors behind policy cost increase

- None

○Factors behind policy cost decrease

- Decrease in cost due to a drop in outstanding term-end losses accompanying an improvement in medical service revenues (-8.0 billion yen)

(4) Sensitivity analysis (cases where assumptions change) (Unit: billion yen)

(A) Policy cost (previously cited)	Case before the negative interest rate policy*2	Fluctuation	1. Government expenditure (subsidies, etc.)	2. Government revenue (payments to the government, etc.)*1	3. Opportunity cost of capital investments, etc.
14.9	16.2	+1.2	-0.0	-	+1.3

(A) Policy cost (previously cited)	Case of a 1% decrease in medical services revenues	Fluctuation	1. Government expenditure (subsidies, etc.)	2. Government revenue (payments to the government, etc.)*1	3. Opportunity cost of capital investments, etc.
14.9	18.2	+3.3	-	-	+3.3

(Note) Components in each column may not add up to the total because of rounding.

*1 Government revenue (payments to the government, etc.) is booked as a negative amount. Example: -10 b. yen for 10 b. yen in payments to government, etc.

*2 Assumed interest rates (discount factor and future interest rate) are based on the market yield on Japanese government bonds on January 28, 2016, before the introduction of the negative interest rate policy.

4. Outline of estimation and project prospect employed in the analysis

[Outline of estimation]
The estimation covers hospital facilities or medical machine development for medical services by the NCCHD to provide medical services for growth-related diseases.
The analysis period covers 16 years for the redemption of 1 billion yen in fiscal loans committed in FY2022 for the operation.

[Project prospect]
Medical services revenues are calculated in light of the management efforts being made by the NCCHD and other factors.
Revision of medical service fees is an uncertain factor and is not taken into account.

(Unit: million yen)

	Result		Estimated	Planned	Assumptions for calculation						
FY	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Medical services revenues	20,511	18,766	20,021	21,602	21,602	21,602	21,602	21,602	21,602	21,602	21,602
Medical services expenses	18,049	17,997	19,611	19,403	19,403	19,403	19,403	19,403	19,403	19,403	19,403

	Assumptions for calculation							
FY	2030	2031	2032	2033	2034	2035	2036	2037
Medical services revenues	21,602	21,602	21,602	21,602	21,602	21,602	21,602	21,602
Medical services expenses	19,403	19,403	19,403	19,403	19,403	19,403	19,403	19,403

5. Reasons for granting of subsidies, mechanism and underlying laws

[Reasons for granting of subsidies]
The NCCHD improves medical services for growth-related diseases under national healthcare policies by conducting surveys, research and technology development, and by providing medical services related closely to medical services for growth-related diseases and training technicians for such services so as to contribute to the improvement and promotion of public health.

(Underlying laws and regulations)
Act on General Rules for Incorporated Administrative Agencies (Act No.103 of 1999)
Article 46 The national government may give incorporated administrative agencies grants equivalent to all or any part of the funds necessary for their operations.

(Underlying laws and regulations for the payments to the national treasury)
Act on National Research and Development Agencies that Conduct Research related to Advanced and Specialized Medical Care (Act No.93 of 2008)
Article 20 (1) National Centers for Advanced and Specialized Medical Care may, if there is a reserve fund as prescribed by Article 44, Paragraph 1 of the Act after the deposition as prescribed by Article 44, Paragraph 1 or 2 of the Act in the last fiscal year of the project in the period of the medium to long-term target (hereinafter referred to as "medium to long-term target period") as prescribed by Article 35-4, Paragraph 2, Item 1 of the Act, use the amount approved by Minister of Health, Labour and Welfare as revenue for operations which National Centers for Advanced and Specialized Medical Care conduct, as prescribed by from Article 13 to 19 in the next medium to long-term target period as specified in the medium to long-term plan approved as prescribed by Article 35-5, Paragraph 1 of the Act concerning next medium to long-term target period (if any change is approved as prescribed by the same Paragraph, use the plan after the change).
(2) National Centers for Advanced and Specialized Medical Care may deduct from the amount equal to the reserve specified in Paragraph 1 the amount approved under the said Paragraph. After the deduction, the remaining amount, if any, shall be paid to the national treasury.
(3) (omitted)

6. Special remarks

Based on the Act on the Promotion of Administrative Reform to Realize Simple and Efficient Government (Act No. 47 of 2006) and Act on Incorporated Administrative Agency Engaging in Research on Highly-Specialized Medicine (Act No. 93 of 2008), etc., the Special Account of the National Center for Advanced and Specialized Medical Care was abolished as of the end of FY2009, and the National Center for Advanced and Specialized Medical Care was reorganized into an Incorporated Administrative Agency on April 1, 2010.
Under the provisions of Article 130 of the Act on the Arrangement of the Relevant Acts Incidental to Enforcement of the Act for Partial Amendment of the Act on the General Rules for Incorporated Administrative Agencies (Act No. 67 of 2014), the National Center for Child Health and Development (Incorporated Administrative Agency) was reorganized into the National Center for Child Health and Development (National Research and Development Agency) on April 1, 2015.

(Reference) Outcome and social and economic benefits of operations

1. Diagnosis and Cure

The NCCHD promotes medical services and research concerning growth-related diseases in the reproductive life cycle that starts from fertilization and pregnancy, followed by the fetal period, the neonatal period, childhood, puberty and adulthood to foster future generations, and formulates and develops models for all the medical services for child health and growth-related diseases, including emergency medical care for children and perinatal care, in consideration of team medical care and comprehensive medical care activities. Specifically, advanced and specialized medical services as follows are to be provided, implemented and established:
a. Gene therapies for congenital immunodeficiency syndromes (chronic granulomatosis and Wiskott-Aldrich syndromes);
b. Genetic diagnosis for rare child diseases utilizing next-generation sequencers;
c. Non-stressed pre-implantation genetic diagnosis using maternal blood;
d. Establishment of new treatment methods for inborn error of metabolisms;
e. Heart surgeries during neonatal period;
f. Further development of organ transplants for children.

2. Research

In order to further strengthen the Center's functions as the base for clinical research on child health and development-related diseases, the research contributing to the development of advanced pioneering care and the establishment of standard medical care will be conducted as follows:
a. To figure out the mechanism of new diseases through comprehensive genomic analyses of patients with obstetrical abnormalities, growth impairment, reproductive dysfunction, or congenital malformation, etc.;
b. To figure out the interaction between environmental factors and genes associated with child health and development-related diseases (in particular, to ascertain patterns of genetic mutations in Japanese patients and determinants for the seriousness of diseases, and figure out the correlation between bacterial flora and perinatal diseases);
c. To conduct data screening for the purpose of building a database of child patients;
d. To develop a drug for immune deficiency diseases for which hematopoietic stem cell transplants are not available.

3. Educational training

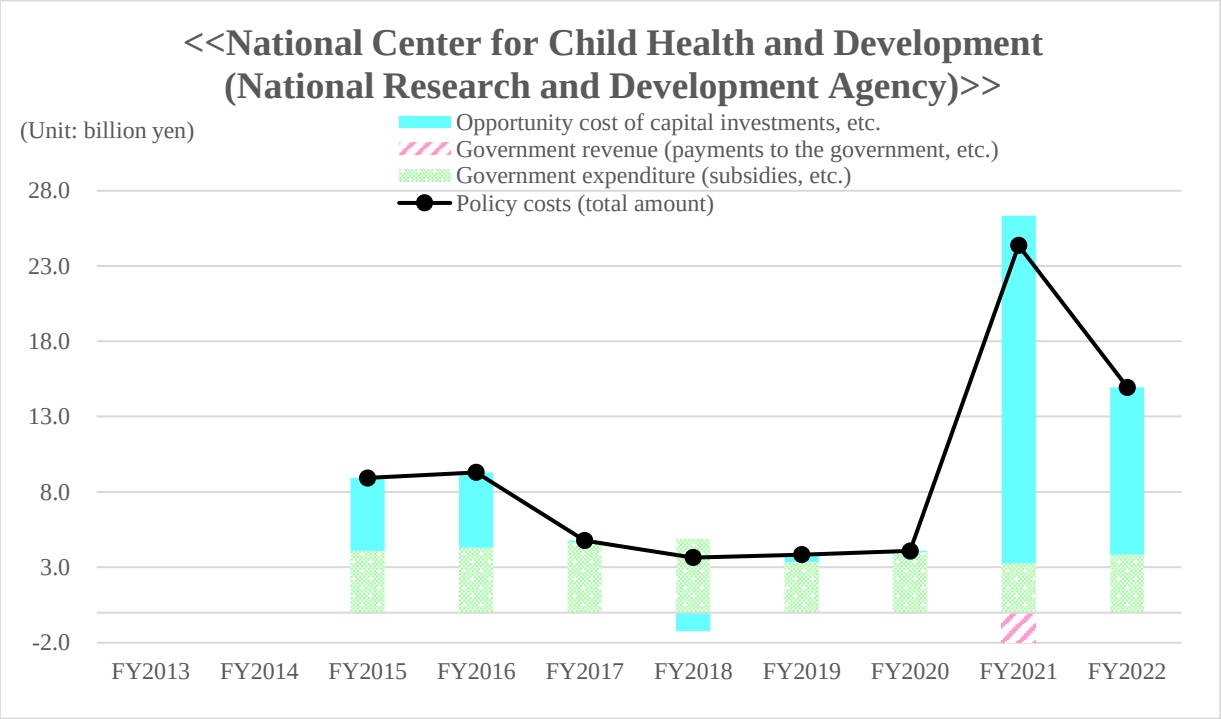
The educational training project aims to foster specialists in clinical research at research institutions and Clinical Research and Medical Innovation Centers.
At hospitals, pioneering personnel with leadership and expertize in medical services for child health and development-related diseases are to be fostered and dispatched nationwide to promote the leveling of the medical services for children.

4. Information transmission

Ideal pediatrics, perinatal care, and maternal care, as well as ideal health services as a whole, will be discussed to present a grand design therefor, with the aim of providing the general public and medical institutions with information, such as research outcomes and latest domestic and international knowledge, promptly and in an easy-to-understand manner.

Overview of policy cost analysis results

[Changes in policy costs]



Note: Policy costs for each fiscal year differ in assumptions including interest rates applied to estimates.

(Unit: billion yen)

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Policy costs (total amount)			8.9	9.3	4.8	3.6	3.8	4.1	24.4	14.9
Government expenditure (subsidies, etc.)			4.1	4.3	4.7	4.9	3.3	4.0	3.2	3.8
Government revenue (payments to the government, etc.)			-	-	-	-	-	-	-2.0	-
Opportunity cost of capital investments, etc.			4.9	5.0	0.1	-1.2	0.5	0.1	23.1	11.1

【Explanation of policy cost trends】

・As the development of hospital facilities or medical machines for medical services is subjected to FILP, the policy cost covers subsidies (grants for operation cost, etc.) from the government for the medical service segment and the opportunity cost of capital investments, etc. from the government.
・The policy cost decreased by 4.5 billion yen from FY2016 to FY2017 due primarily to an improvement in medical business revenue as the NCCHD promoted business improvement efforts including lump-sum procurement of medical machines and supplies, the revision of outsourcing contracts for clerical and janitorial services, and an increase in the number of pediatric intensive care units to raise hospitalized care revenue.
・The policy cost increased by 20.3 billion yen from FY2020 to FY2021 due to a decrease in medical service revenues amid the COVID-19 crisis.
・The policy cost decreased in FY2022 due mainly to a drop in outstanding term-end losses through an improvement in medical service revenues accompanying a rise in the number of patients.

【FILP agency's self-assessment of policy cost analysis results (FY2022)】

・The results of the policy cost analysis in FY2022 showed a decrease in the policy cost from the estimation results in FY2021. This is attributable mainly to a decrease in outstanding term-end losses through an improvement in medical service revenues accompanying a rise in the number of patients. The NCCHD believes that it must continue efforts to improve hospital business efficiency while watching the impact of the COVID-19 disaster.
・In the sensitivity analysis (case before the negative interest rate policy), the policy cost increased as the opportunity cost of capital investments rose due to a change in the discount factor. The financial impact of the policy cost increase is assessed as minimal.
・The results of the sensitivity analysis (case of a 1% decrease in medical services revenues) showed an increase of 3.3 billion yen in the policy cost due to a rise in opportunity cost of capital investments, etc., but the impact on financial conditions is considered to be minimal.

(Reference) Financial Statements

Balance Sheet

(Unit: million yen)

Item	End of FY2020 (Result)	End of FY2021 (Estimated)	End of FY2022 (Planned)	Item	End of FY2020 (Result)	End of FY2021 (Estimated)	End of FY2022 (Planned)
(Assets)				(Liabilities and net assets)			
Current assets	11,531	12,022	12,872	Current liabilities	6,745	6,435	8,658
Cash and bank deposits	6,238	6,208	6,521	Donation received	695	786	800
Accounts due for medical operations	4,413	4,901	4,989	Current portion of long-term borrowings	1,073	1,157	1,225
Accounts receivable	703	719	1,107	Accounts payable	1,053	936	1,093
Inventory assets	134	151	212	Money unpaid	2,534	2,240	4,492
Prepaid expenses	4	4	4	Current portion of lease obligation	117	120	120
Other current assets	39	39	39	Unpaid expenses	1	1	1
Fixed assets	47,369	49,011	49,351	Unpaid consumption tax, etc.	31	31	31
Tangible fixed assets	42,596	44,538	45,566	Advances received	27	27	27
Buildings	14,876	16,109	16,331	Deposits payable	379	379	379
Structures	49	48	48	Provisions			
Medical instruments and equipment	2,957	3,502	4,245	Provision for bonuses	779	702	434
Other instruments and equipment	899	1,064	1,127	Other current liabilities	55	55	55
Vehicles	19	18	18	Fixed liabilities	12,230	14,287	13,648
Land	23,796	23,796	23,796	Contra-accounts for assets	1,079	930	754
Other tangible fixed assets	1	1	1	Long-term borrowings	5,671	8,222	7,761
Intangible fixed assets	86	135	185	Lease liabilities	390	266	143
Software	84	134	183	Provisions	5,036	4,812	4,935
Telephone subscription right	0	0	0	Provision for retirement benefits	5,010	4,787	4,909
Other intangible fixed assets	1	1	1	Provision for environment protection measures	25	25	25
Investment and other assets	4,688	4,339	3,600	Asset retirement obligation	55	55	55
Long-term prepaid expenses	10	10	10	(Total liabilities)	18,975	20,722	22,306
Bankruptcy or rehabilitation claims, etc.	8	8	8	Capital			
Allowance for loan losses	-8	-8	-8	Government investment	36,383	36,383	36,383
Contra-accounts for provision for retirement benefits	4,678	4,329	3,591	Capital surplus	535	1,284	1,423
				Retained earnings	3,007	2,644	2,111
				(Total net assets)	39,925	40,311	39,917
Total assets	58,900	61,033	62,223	Total liabilities and net assets	58,900	61,033	62,223

Notes 1. The balance sheet includes amounts for projects other than those subject to the policy cost analysis.
2. Components may not add up to the total because of rounding.

Income Statement

(Unit: million yen)

Item	FY2020 (Result)	FY2021 (Estimated)	FY2022 (Planned)
Ordinary expenses	27,172	28,599	28,969
Operating expenses	27,082	28,511	28,891
Research operating expenses	1,314	1,254	1,260
Clinical research operations expenses	3,114	3,018	3,025
Medical care operations expenses	19,884	21,337	21,692
Education and research operations expenses	1,824	1,782	1,782
Information operating expenses	205	214	214
General and administrative expenses	741	906	917
Other ordinary expenses	90	87	79
Ordinary income	28,234	28,277	28,437
Income from grants for operating expenses	3,119	3,046	3,046
Operating income	22,166	22,638	23,821
Clinical research operations income	2,770	1,949	1,949
Medical care operations income	19,212	20,508	21,691
Education and research operations income	17	31	31
Other operating income	166	150	150
Other ordinary income	2,950	2,592	1,570
Ordinary profit or loss	1,062	-322	-533
Temporary losses	36	42	-
Loss on retirement of fixed assets	7	40	-
Other extraordinary losses	29	2	-
Temporary profits	12	1	-
Profit on fixed asset sale	0	0	-
Other temporary profits	12	1	-
Net profit or loss	1,038	-363	-533
Reversal of reserve fund carried over from the previous Mid-term Objective period	-	363	533
Gross profit	1,038	-	-

Notes 1. The income statement includes amounts for projects other than those subject to the policy cost analysis.
2. Components may not add up to the total because of rounding.