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 National Center for Child Health and Development property provides citizens with better-quality medical services by developing medical facilities, carrying out investigation, research, and exploitation of techniques of medical services for child health and development-related diseases that have a grave impact on the health of citizens, and by integrating medical services closely related to these works and the training of technicians.

2. Amount of lending under FY2020 FILP

(Unit: billion yen)

FY2020 FILP	Estimated outstanding amount of FILP lending at the end of FY2019
4.8	6.0

3. Estimated policy cost analysis of the project

(1) Policy cost		(Unit: ł	pillion yen)
Category	FY2019	FY2020	Fluctuation
1. Government expenditure (subsidies, etc.)	3.3	4.0	+0.7
2. Government revenue (payments to the government, etc.)* ¹	-	-	-
3. Opportunity cost of capital investments, etc.	0.5	0.1	-0.4
Total (1+2+3=policy cost(A))	3.8	4.1	+0.2
Analysis period (years)	16 years	16 years	-

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

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Category	FY2019	FY2020	Fluctuation
A) Policy cost (previously cited)	3.8	4.1	+0.2
Opportunity cost of capital investments, etc. provided before the beginning of the analysis period	2.0	1.1	-0.8
2) Policy cost expected to be newly accrued during the analysis period	1.9	3.0	+1.1
Government expenditure (subsidies, etc.)	3.3	4.0	+0.7
Government revenue payments to the government, etc.)*1	-	-	-
Opportunity cost of surplus, etc.	-1.5	-1.0	+0.4
Opportunity cost of capital investments, etc.	-	-	-

(3) Year-to-Year comparison analysis

(Computing any fluctuation from previous year)

(Unit: billion ven)

		FY2019	FY2020	Simple fluctuation
	Simple comparison (before adjustment)	3.8	4.1	+0.2
Policy cost	Past year comparison (after	Adjusting initial years (Analysis results after adjusting initial year to that for FY2020 analysis)	Adjusting assumed interest rates (Analysis results of re-estimation using assumed interest rate for FY2019)	Real fluctuation (2-1)
	adjustment)	4.4	5.0	+0.6

[Real fluctuation factor analysis]

OFactors behind policy cost increase

- Increase in labor cost due to personnel growth accompanying workstyle reform, etc. (+1.0 billion yen)

OFactors behind policy cost decrease

- Increase in medical services revenues (-0.4 billion yen)

(4) Sensitivity analysis (cases where assumptions change)

(Unit: billion yen)

	(A) Policy cost (previously cited)	Case before the negative interest rate	Fluctuation	Government expenditure	Government revenue (payments to the government,	3. Opportunity cost of
ı	(previously cited)	policy*2		(subsidies, etc.)	etc.)*1	capital investments, etc.
ı	4.1	6.2	+2.1	-0.1	-	+2.1

(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 facility, equipment and medical instrument development by the National Center for Child Health and Development (National Research and Development Agency) to provide medical services for child health and development-related diseases that have a grave impact on the health of citizens. The scale of projects is estimated to be 4.8 billion yen in FY2020. The length of analysis period is 16 years, during which the redemption of debts related to the projects will be completed.

[Project prospect]

Medical services revenues, which serve as major preconditions that exert a significant influence on changes in the policy cost, are estimated in light of the management efforts being made by the National Center for Child Health and Development (National Research and Development Agency) and other factors. Revision of medical service fees is an uncertain factor and is not taken into account.

(Unit: million yen)

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	Re	sult	Estimated	Planned	Assumptions for calculation						
FY	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Medical services revenues	19,284	19,715	20,494	20,583	20,583	20,583	20,583	20,583	20,583	20,583	20,583
Medical services expenses	16,642	17,242	17,919	18,819	18,819	18,819	18,819	18,819	18,819	18,819	18,819

	Assumptions for calculation								
FY	2028	2029	2030	2031	2032	2033	2034	2035	
Medical services revenues	20,583	20,583	20,583	20,583	20,583	20,583	20,583	20,583	
Medical services expenses	18,819	18,819	18,819	18,819	18,819	18,819	18,819	18,819	

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

The objective of the Center is to contribute to the progress and improvement of public health through the improvement of advanced technical medical services for intractable diseases, genital diseases or other diseases of parents, babies, and children that especially require treatment to ensure children's sound birth and growth (hereinafter referred to as "child health and development-related diseases") as a national medical policy by carrying out investigation, research, and exploitation of techniques of medical services for child health and development-related diseases, and providing medical services closely related to these works and training of technicians. Grants and subsidies are provided to be appropriated for funds necessary for its operations so that the Center can properly achieve said objective.

(Underlying laws and regulations)

Article 46 of the Act on General Rules for Incorporated Administrative Agencies (Act No.103 of 1999)

(Delivery of Financial Resources)

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)

Article 20, Paragraph 1 and 2 of the Act on National Research and Development Agencies that Conduct Research related to Advanced and Specialized Medical Care (Act No.93 of 2008)

Paragraph 1 of Article 20

(Disposition of Reserve Funds)

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).

Paragraph 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.

Paragraph 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 research project aims to promote research and medical services concerning diseases in the reproductive life cycle, starting from fertilization and pregnancy, followed by the fetal period, neonatal period, childhood, puberty to adulthood to foster future generations, and at the same time, to formulate and develop models for all the medical services for child health and development-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 shill health and development related diseases (in
- 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

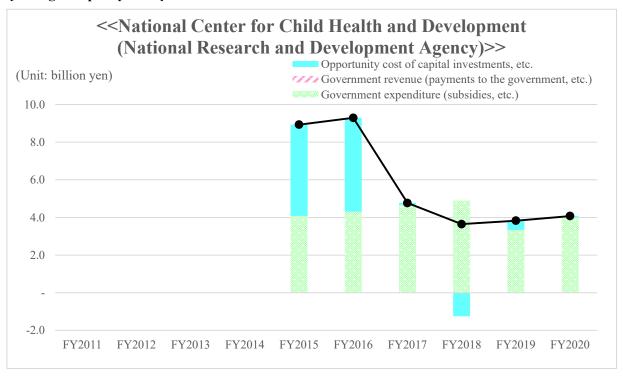
The educational training project aims to foster specialists in clinical research at research institutions and Clinical Research and Medical Innovation Centers. At hospitals, pioneering personnel with leadership and expertize in medical services for child health and development-related diseases are to 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)

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Policy costs (total amount)		\setminus	\setminus	\setminus	8.9	9.3	4.8	3.6	3.8	4.1
Government expenditure (subsidies, etc.)		\setminus	\setminus	\setminus	4.1	4.3	4.7	4.9	3.3	4.0
Government revenue (payments to the government, etc.)		\setminus	\setminus	\setminus	-	-	-	-	-	-
Opportunity cost of capital investments, etc.			\setminus	\backslash	4.9	5.0	0.1	-1.2	0.5	0.1

Explanation of policy cost trends

- Subsidies (grants for operation cost, etc.) from the government and opportunity cost of capital investments, etc. from the government tegarding medical services become policy costs.
- •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 equipment 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.
- In the FY2020 analysis, the policy cost rose due to an increase in operational subsidies, despite a fall in the opportunity cost of capital investments.

(FILP agency's self-assessment of policy cost analysis results (FY2020))

- •The policy cost in the FY2020 analysis increased from FY2019 as the NCCHD increased employment in response to the nationwide workstyle reform, boosting current cost. As no other particular factors behind the increase are seen, the policy cost increase apparently has no problem in terms of financial soundness.
- In the sensitivity analysis, the policy cost increased as the opportunity cost of capital investments in the NCCHD rose due to a higher interest rate before the minus interest rate policy. The policy cost increase's financial impact is apparently minor.

(Reference) Financial Statements

Balance Sheet (Unit: million yen)

Item	End of FY2018	End of FY2019	End of FY2020	Item	End of FY2018	End of FY2019	End of FY2020
	(Result)	(Estimated)	(Planned)		(Result)	(Estimated)	(Planned)
(Assets)				(Liabilities and equity)			
Current assets	10,115	9,662	10,325	Current liabilities	6,198	6,400	5,568
Cash and bank deposits	5,299	5,521	6,015	Debt from grants for operation cost	130	130	-
Accounts due for medical operations	3,899	3,738	3,875	Donation received	217	356	363
Accounts receivable	752	237	271	Long-term loans to be repaid within a year	862	1,031	1,298
Inventory assets	163	163	163	Accounts payable	896	663	663
Prepaid expenses	2	2	2	Money unpaid	2,536	2,751	2,069
Other current assets	0	0	0	Lease obligation to be paid within a year	524	424	124
Fixed assets	41,504	46,852	48,705	Unpaid expenses	1	1	1
Tangible fixed assets	41,110	41,974	41,773	Unpaid consumption tax, etc.	20	20	20
Buildings	14,798	15,207	14,846	Deposits payable	224	224	224
Structures	60	59	53	Reserves	685	697	701
Medical instruments and equipment	1,370	1,742	1,980	Reserve for bonuses	685	697	701
Other instruments and equipment	1,048	1,134	1,071	Other current liabilities	104	104	104
Vehicles	37	35	26	Fixed liabilities	7,063	11,032	14,024
Land	23,796	23,796	23,796	Asset collateral liabilities	1,216	1,030	697
Other tangible fixed assets	1	1	1	Long-term loans payable	4,826	4,940	8,386
Intangible fixed assets	392	407	2,553	Lease liabilities	731	307	183
Software	391	407	2,552	Allowances	236	4,700	4,704
Telephone subscription right	0	0	0	Allowance for retirement pensions	210	4,675	4,679
Other intangible fixed assets	0	0	0	Allowances for environment protection measures	25	25	25
Investment and other assets	2	4,471	4,380	Asset retirement obligation	55	55	55
Investment securities	-	100	100	(Total liabilities)	13,262	17,432	19,592
Long-term prepaid expenses	2	2	2	Capital	36,383	36,383	36,383
Bankruptcy or rehabilitation claims, etc.	34	34	34	Financing by the Government	36,383	36,383	36,383
Loan loss provisions	-34	-34	-34	Capital surplus	299	976	1,163
Return for provision for retirement benefits	-	4,369	4,278	Retained earnings	1,676	1,723	1,892
				(Total equity)	38,358	39,082	39,438
Total assets	51,619	56,514	59,030	Total liabilities and equity	51,619	56,514	59,030

Note: Components may not add up to the total because of rounding.

Income Statement (Unit: million yen)

FY2018 FY2019 FY2020

Item	FY2018	FY2019	FY2020
Helli	(Result)	(Estimated)	(Planned)
Ordinary expenses	25,938	26,571	27,035
Operating expenses	25,833	26,470	26,927
Research operating expenses	1,184	1,139	1,171
Clinical research operations expenses	2,966	2,945	3,133
Medical care operations expenses	18,597	19,325	19,653
Education and research operations expenses	1,824	1,832	1,823
Information operating expenses	186	178	184
General and administrative expenses	1,077	1,050	963
Other ordinary expenses	105	101	108
Ordinary income	26,851	26,622	27,206
Income from grants for operating expenses	3,239	2,942	3,322
Operating income	22,509	22,384	22,689
Clinical research operations income	2,445	1,911	1,830
Medical care operations income	19,932	20,335	20,719
Education and research operations income	26	33	29
Other operating income	106	105	112
Other ordinary income	1,103	1,296	1,195
Ordinary profit	913	51	172
Temporary losses	131	4,374	2
Fixed asset disposal expense	26	3	-
Other extraordinary losses	106	4,371	2
Temporary profits	92	4,369	-
Profit on fixed asset sale	0	0	-
Other temporary profits	92	4,369	-
Net profit	874	47	169
Gross profit	874	47	169

Note: Components may not add up to the total because of rounding.