



Annual Report of Physical and Mental Health among the Children

2020

English digest edition

Autonomic
Nervous Function

Physique

Electronic Media

Abuse

Mortality Rate

Bullying

Frontal Lobe Function

Physical Fitness/Motor Ability

COVID-19

Sleeping Conditions

Drug Abuse

Visual Acuity

Suicide

Obesity/Thinness

The National Network of Physical and Mental Health in Japanese Children

Foreface

The National Network of Physical and Mental Health in Japanese Children – which edits and publishes this book – was formed in 1979: the International Year of the Child. The NGO was established with the hope to foster the healthy growth of children and expand their rights. In the years since, we have shared the results of relevant surveys and widespread efforts, in order to fully understand the changes in the child's body and mind. We have also continued to discuss physical disorders that children have presented with, in an effort to remedy these issues. The "Database of Physical and Mental Health among the Children" initially served as discussion material for the 8th Meeting of Physical and Mental Health among the Children conference held in 1986. Three years later, the "Annual Report of Physical and Mental Health among the Children" was born, and the 2020 edition became the 32nd book in the series.

The Japanese version of this text is edited in three parts every year. The first covers this year's children's body and mind statistics, based on evidence and narrative, the second presents basic statistics concerning children's bodies and minds, and the third is a recording of a special lecture held during the previous year. The book has not always been edited in this manner. In the previous approach, the third part appeared in the 2002 version, while the first appeared in the 2007 version, and so forth. From this, it evolved, little by little, according to the demands of each period. Notably, the second part (in which the true value of this book lies), has been edited in a consistently way from the beginning. And we have continued to do so with the intention that it may be used to discuss children's bodies and minds anytime, anywhere, and to anyone. Thus, our network members strive to collect as wide a range of government statistics and research results as possible, under the four pillars of survival, protection, development, and lifestyle. Nowadays, this book is widely used not only for the annual conference but also as a textbook for workshops in various parts of Japan, as well as a resource for childcare workers and for teacher training at universities.

We have decided to deliver the digest version of the second part in English for various reasons. First, the physical and mental health challenges of Japanese children, which gained prominence in the 1960s, are becoming increasingly complicated and serious. As a result, we have a stronger desire to make the SOS internationally known. There is another important reason for this decision. Last year (2019) was the 30th anniversary of the adoption of the United Nations' Convention on the Rights of the Child and the 25th anniversary of its ratification in Japan. Additionally, in March, the United Nations Committee on the Rights of the Child presented the "Concluding observations on the combined fourth and fifth periodic reports of Japan" to our nation. Thus, it was a year that consistently made us consider children's rights from an international perspective, and the English language was selected for its international reach.

As we all know, people's lifestyles have inevitably changed in 2020, as COVID-19 raged across the globe. Of course, children were not exempt. It was a year when we embraced notions of planetary health, as this disease was not unrelated to the global world. It is also for this reason that we decided to publish the English version: mustering our courage to overcome the barriers of using a language that we were not fluent in. We hope that this book fosters global discussions on the bodies and minds of children, and that the rights of the children's bodies and minds will be guaranteed.

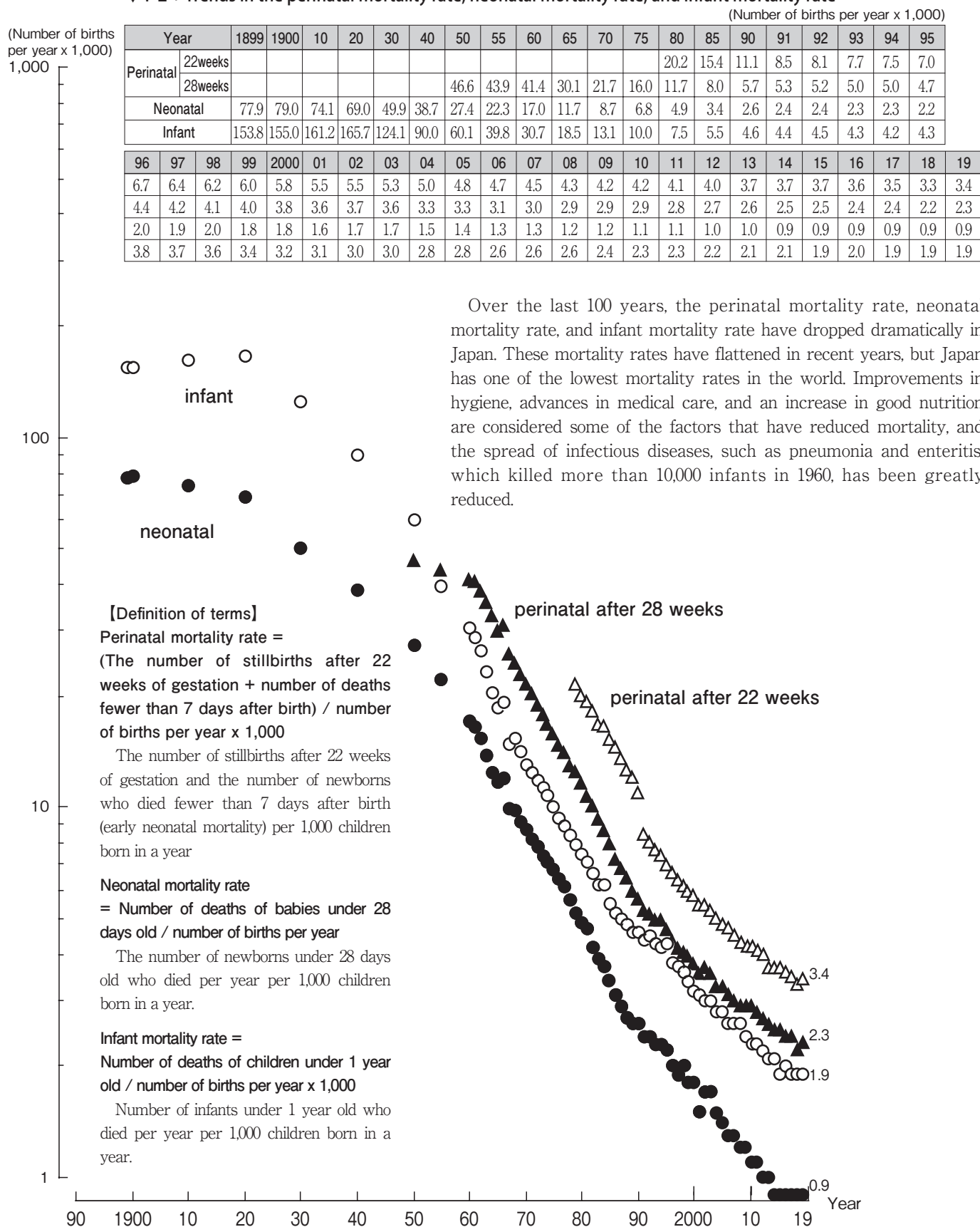
Last, but not least, I would like to thank everyone who kindly agreed to contribute writing, data, and materials for this book. In addition, this text could not be published without the help of editorial committee members, editorial cooperating members, cooperating staff, Ms. Kumiko Taguchi of the Editorial Studio Societas, and everyone of Book House HD. I would like to express our sincere gratitude to all the staff who have contributed to the editing of this book with the dedicated motto of "everything is for the child!" I am very thankful to you.

December, 2020

Shingo Noi, PhD
Editor-in-Chief

1 Perinatal mortality rate, neonatal mortality rate, and infant mortality rate

▼1-2 : Trends in the perinatal mortality rate, neonatal mortality rate, and infant mortality rate



▲1-1 : Trends in the perinatal mortality rate, neonatal mortality rate, and infant mortality rate

(1-1, 1-2 : from the vital statistics of the Ministry of Health, Labor, and Welfare and health and welfare statistics of the Health, Labor, and Welfare Statistics Association)

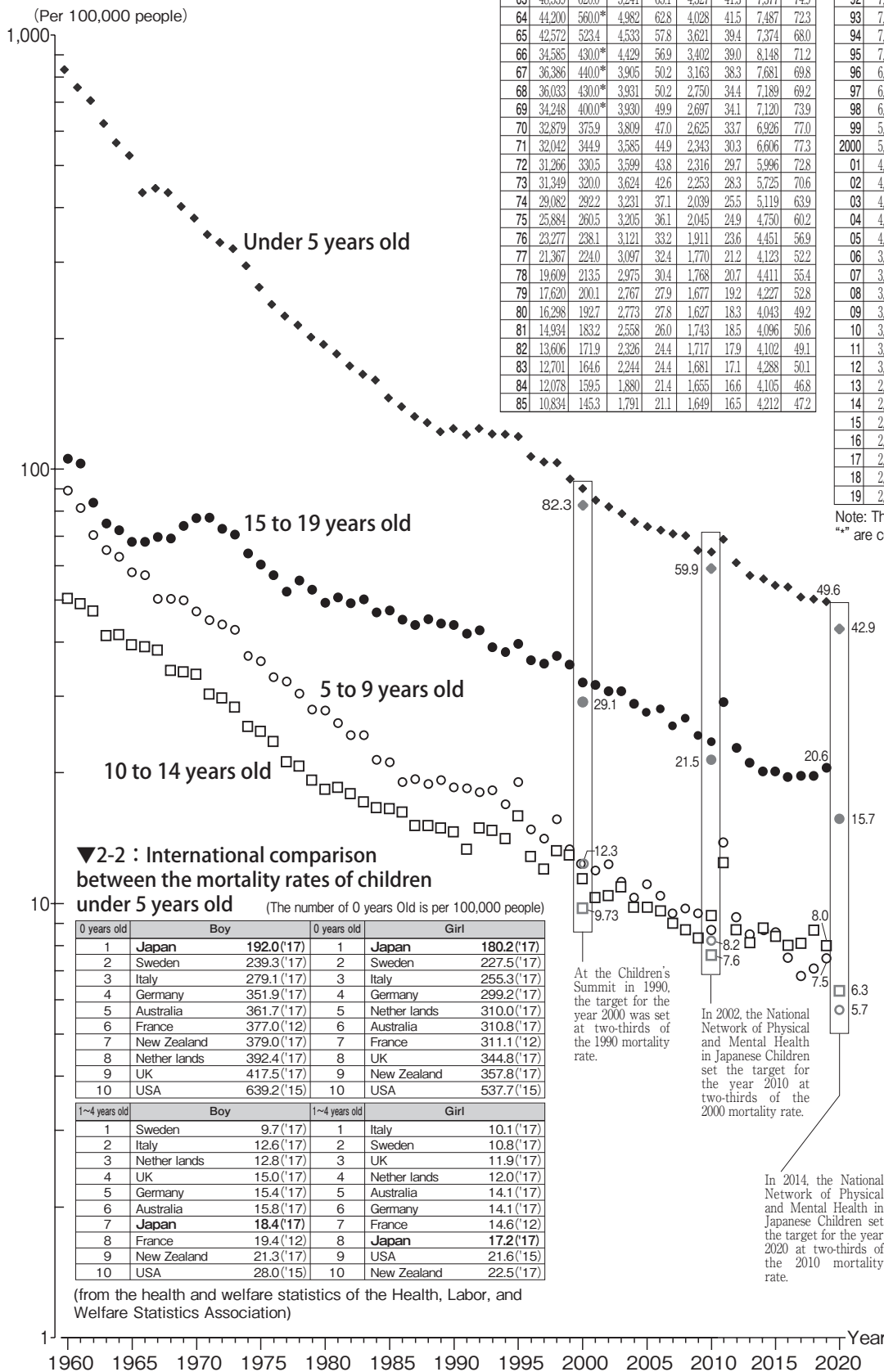
Mortality rates in children

▼2-3 : Trends in the number of deaths and mortality rates

Year	Under 5 years old		5 to 9 years old		10 to 14 years old		15 to 19 years old	
	Number	rate	Number	rate	Number	rate	Number	rate
1947	328,663	3401.7	30,103	330.8	16,553	187.8	36,556	442.4
50	222,903	1989.2	19,774	207.7	10,212	117.4	21,222	247.7
55	99,399	1074.8	14,240	129.0	6,548	68.9	10,992	127.4
60	64,692	824.7	8,209	89.2	5,545	50.3	9,829	105.6
61	58,748	750.0*	7,113	81.3	5,624	48.9	9,119	102.9
62	54,495	700.0*	5,880	70.4	5,207	47.1	7,734	83.7
63	48,539	620.0*	5,241	65.1	4,327	41.3	7,377	74.9
64	44,200	560.0*	4,982	62.8	4,028	41.5	7,487	72.3
65	42,572	523.4	4,533	57.8	3,621	39.4	7,374	68.0
66	34,585	430.0*	4,429	56.9	3,402	39.0	8,148	71.2
67	36,386	440.0*	3,905	50.2	3,163	38.3	7,681	69.8
68	36,033	430.0*	3,931	50.2	2,750	34.4	7,189	69.2
69	34,248	400.0*	3,930	49.9	2,697	34.1	7,120	73.9
70	32,879	375.9	3,809	47.0	2,625	33.7	6,926	77.0
71	32,042	344.9	3,585	44.9	2,343	30.3	6,606	77.3
72	31,266	330.5	3,599	43.8	2,316	29.7	5,996	72.8
73	31,349	320.0	3,624	42.6	2,253	28.3	5,725	70.6
74	29,082	292.2	3,231	37.1	2,039	25.5	5,119	63.9
75	25,884	260.5	3,205	36.1	2,045	24.9	4,750	60.2
76	23,277	238.1	3,121	33.2	1,911	23.6	4,451	56.9
77	21,367	224.0	3,097	32.4	1,770	21.2	4,123	52.2
78	19,609	213.5	2,975	30.4	1,768	20.7	4,411	55.4
79	17,620	200.1	2,767	27.9	1,677	19.2	4,227	52.8
80	16,298	192.7	2,773	27.8	1,627	18.3	4,043	49.2
81	14,934	183.2	2,558	26.0	1,743	18.5	4,096	50.6
82	13,606	171.9	2,326	24.4	1,717	17.9	4,102	49.1
83	12,701	164.6	2,244	24.4	1,681	17.1	4,288	50.1
84	12,078	159.5	1,880	21.4	1,655	16.6	4,105	46.8
85	10,834	145.3	1,791	21.1	1,649	16.5	4,212	47.2

Year	Under 5 years old		5 to 9 years old		10 to 14 years old		15 to 19 years old	
	Number	rate	Number	rate	Number	rate	Number	rate
86	10,082	138.7	1,552	19.0	1,592	16.2	4,251	45.0
87	9,377	131.7	1,532	19.3	1,446	15.1	4,190	43.7
88	8,816	127.3	1,450	18.8	1,390	15.1	4,430	45.1
89	8,132	121.4	1,453	19.2	1,310	14.9	4,393	44.1
90	7,983	123.4	1,377	18.5	1,242	14.6	4,353	43.7
91	7,527	119.5	1,337	18.4	1,087	13.3	4,160	41.8
92	7,614	123.5	1,283	18.0	1,180	14.9	4,061	42.5
93	7,263	120.0	1,255	18.2	1,138	14.7	3,581	38.9
94	7,186	119.7	1,128	16.9	1,072	14.1	3,341	37.9
95	7,040	118.3	1,235	19.0	1,184	15.9	3,362	39.6
96	6,310	106.5	934	14.8	938	12.8	2,973	36.3
97	6,103	103.4	874	14.1	853	12.0	2,830	35.6
98	6,088	103.0	946	15.6	915	13.2	2,876	37.1
99	5,567	94.5	794	13.3	868	12.9	2,689	35.4
2000	5,269	89.9	738	12.3	744	11.4	2,397	32.2
01	4,936	84.5	709	11.9	651	10.3	2,313	31.8
02	4,746	81.6	730	12.3	644	10.4	2,191	30.8
03	4,518	78.7	663	11.2	662	10.9	2,132	30.8
04	4,281	78.7	607	10.3	589	9.8	1,928	28.8
05	4,102	73.9	655	11.1	590	9.8	1,802	27.6
06	3,940	72.3	612	10.4	573	9.6	1,778	28.0
07	3,809	70.8	552	9.5	534	9.0	1,599	25.8
08	3,747	70.1	557	9.7	516	8.7	1,621	26.7
09	3,460	65.0	534	9.5	487	8.3	1,467	24.4
10	3,382	64.4	480	8.6	553	9.4	1,422	23.6
11	3,622	68.9	749	13.8	728	12.4	1,740	29.0
12	3,176	60.8	497	9.3	509	8.7	1,369	22.9
13	2,958	57.0	453	8.5	467	8.1	1,268	21.2
14	2,883	55.9	460	8.7	501	8.8	1,205	20.3
15	2,692	54.0	452	8.5	470	8.4	1,220	20.3
16	2,618	53.5	391	7.5	440	8.0	1,166	19.6
17	2,454	50.7	351	6.8	437	8.1	1,161	19.7
18	2,393	50.2	363	7.1	463	8.7	1,143	19.7
19	2,319	49.6	379	7.5	426	8.0	1,177	20.6

Note: The rate per 100,000 people is given. However, "*" are converted from the value per 1,000 people.



Mortality is declining at all ages. An international comparison of the mortality rates of children under 5 years old shows that Japan ranks 1st for both sexes at 0 years old but 7th for boys and 8th for girls from 1-4 years old. Japan's neonatal care has made some of the best progress in the world, but it is believed that the inadequacies of the pediatric emergency medical system, such as the shortage of pediatric care services for older children, may have influenced the rates.

In 2014, the National Network of Physical and Mental Health in Japanese Children set the target for the year 2020 at two-thirds of the 2010 mortality rate.

▲2-1 : Trends in the mortality rate

(2-1, 2-3 : from the vital statistics of the Ministry of Health, Labor, and Welfare)

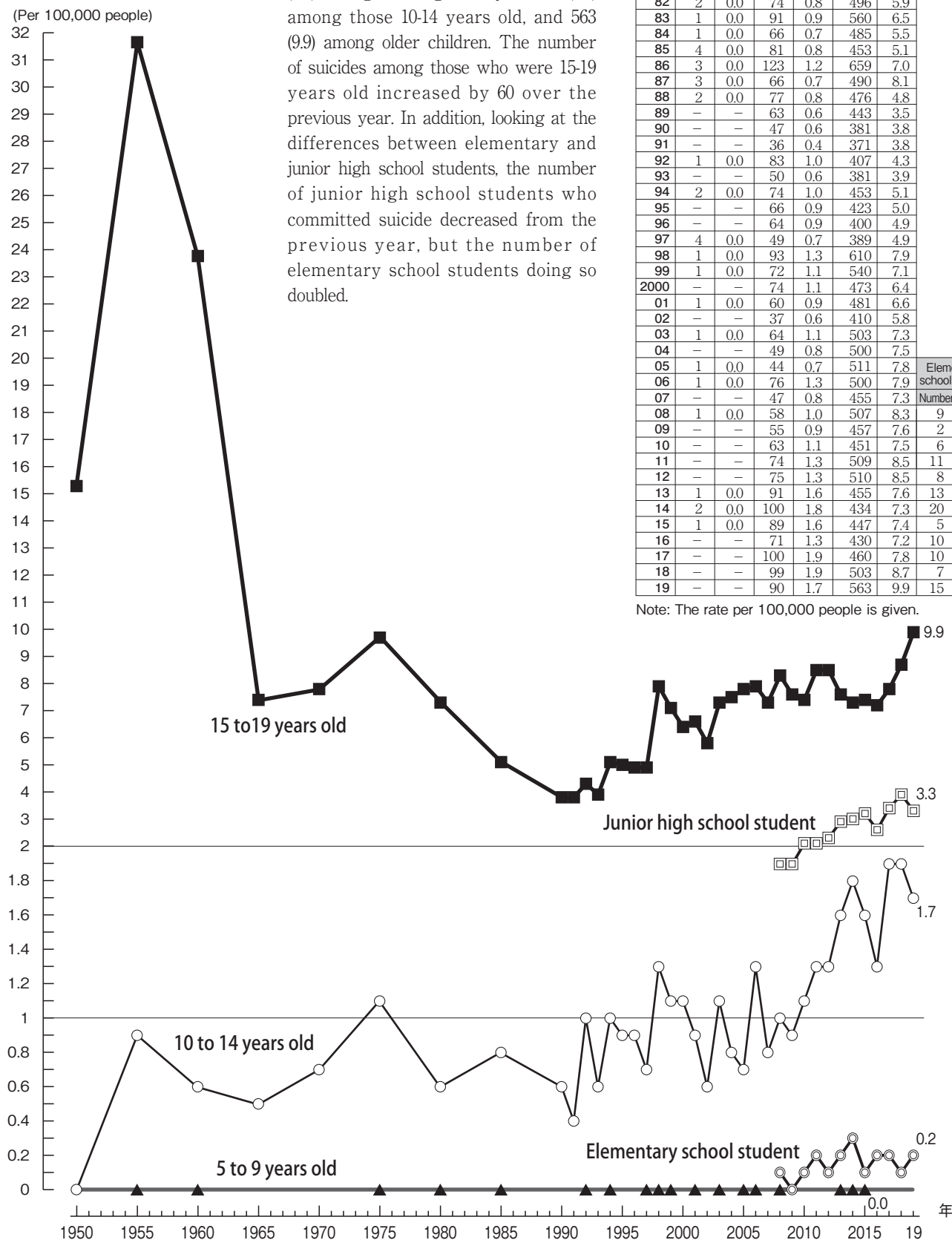
3 Suicide deaths in children

The number of child suicides (suicide rate per 100,000 people) in 2019 was 0 (0.0) among those aged 5-9 years, 90 (1.7) among those 10-14 years old, and 563 (9.9) among older children. The number of suicides among those who were 15-19 years old increased by 60 over the previous year. In addition, looking at the differences between elementary and junior high school students, the number of junior high school students who committed suicide decreased from the previous year, but the number of elementary school students doing so doubled.

▼3-2 : Trends in the suicide rates of 5 to 19 year-olds

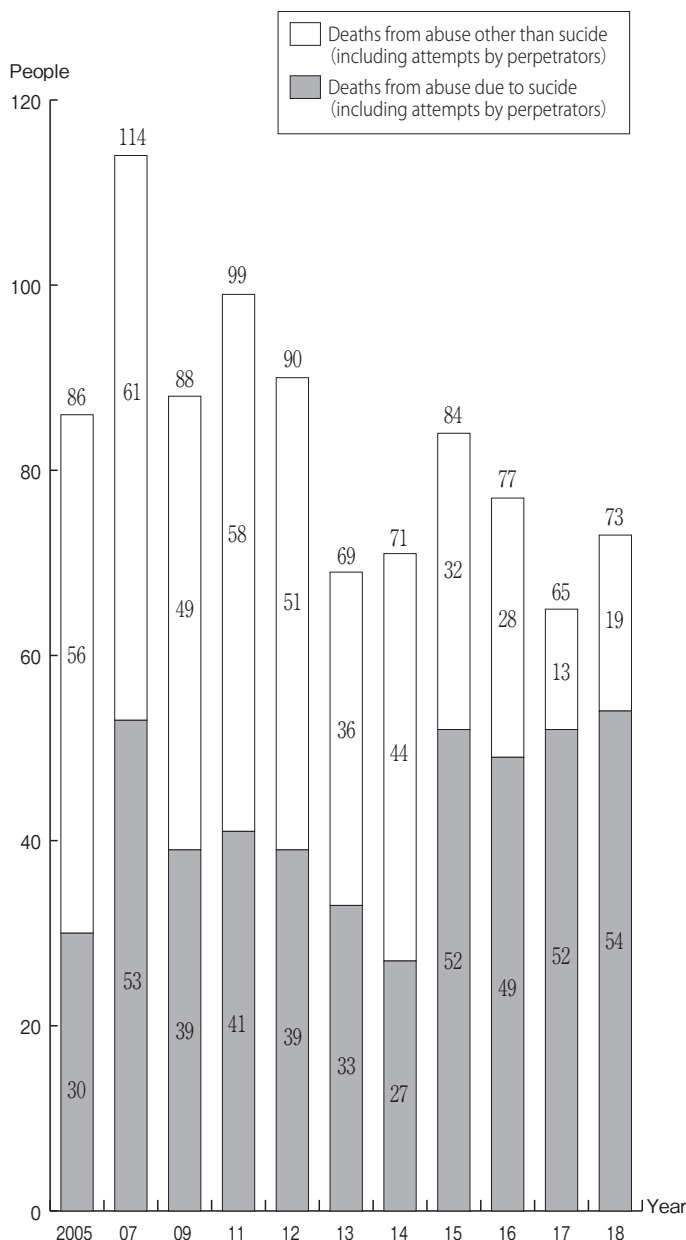
Year	5 to 9 years old		10 to 14 years old		15 to 19 years old	
	Number	Rate	Number	Rate	Number	Rate
1950	—	—	2	0.0	1,310	15.3
55	3	0.0	88	0.9	2,735	31.7
60	1	0.0	62	0.6	2,217	23.8
65	—	—	46	0.5	806	7.4
70	—	—	55	0.7	702	7.8
75	1	0.0	88	1.1	788	9.7
80	2	0.0	53	0.6	599	7.3
81	—	—	87	0.9	526	6.5
82	2	0.0	74	0.8	496	5.9
83	1	0.0	91	0.9	560	6.5
84	1	0.0	66	0.7	485	5.5
85	4	0.0	81	0.8	453	5.1
86	3	0.0	123	1.2	659	7.0
87	3	0.0	66	0.7	490	8.1
88	2	0.0	77	0.8	476	4.8
89	—	—	63	0.6	443	3.5
90	—	—	47	0.6	381	3.8
91	—	—	36	0.4	371	3.8
92	1	0.0	83	1.0	407	4.3
93	—	—	50	0.6	381	3.9
94	2	0.0	74	1.0	453	5.1
95	—	—	66	0.9	423	5.0
96	—	—	64	0.9	400	4.9
97	4	0.0	49	0.7	389	4.9
98	1	0.0	93	1.3	610	7.9
99	1	0.0	72	1.1	540	7.1
2000	—	—	74	1.1	473	6.4
01	1	0.0	60	0.9	481	6.6
02	—	—	37	0.6	410	5.8
03	1	0.0	64	1.1	503	7.3
04	—	—	49	0.8	500	7.5
05	1	0.0	44	0.7	511	7.8
06	1	0.0	76	1.3	500	7.9
07	—	—	47	0.8	455	7.3
08	1	0.0	58	1.0	507	8.3
09	—	—	55	0.9	457	7.6
10	—	—	63	1.1	451	7.5
11	—	—	74	1.3	509	8.5
12	—	—	75	1.3	510	8.5
13	1	0.0	91	1.6	455	7.6
14	2	0.0	100	1.8	434	7.3
15	1	0.0	89	1.6	447	7.4
16	—	—	71	1.3	430	7.2
17	—	—	100	1.9	460	7.8
18	—	—	99	1.9	503	8.7
19	—	—	90	1.7	563	9.9

Note: The rate per 100,000 people is given.



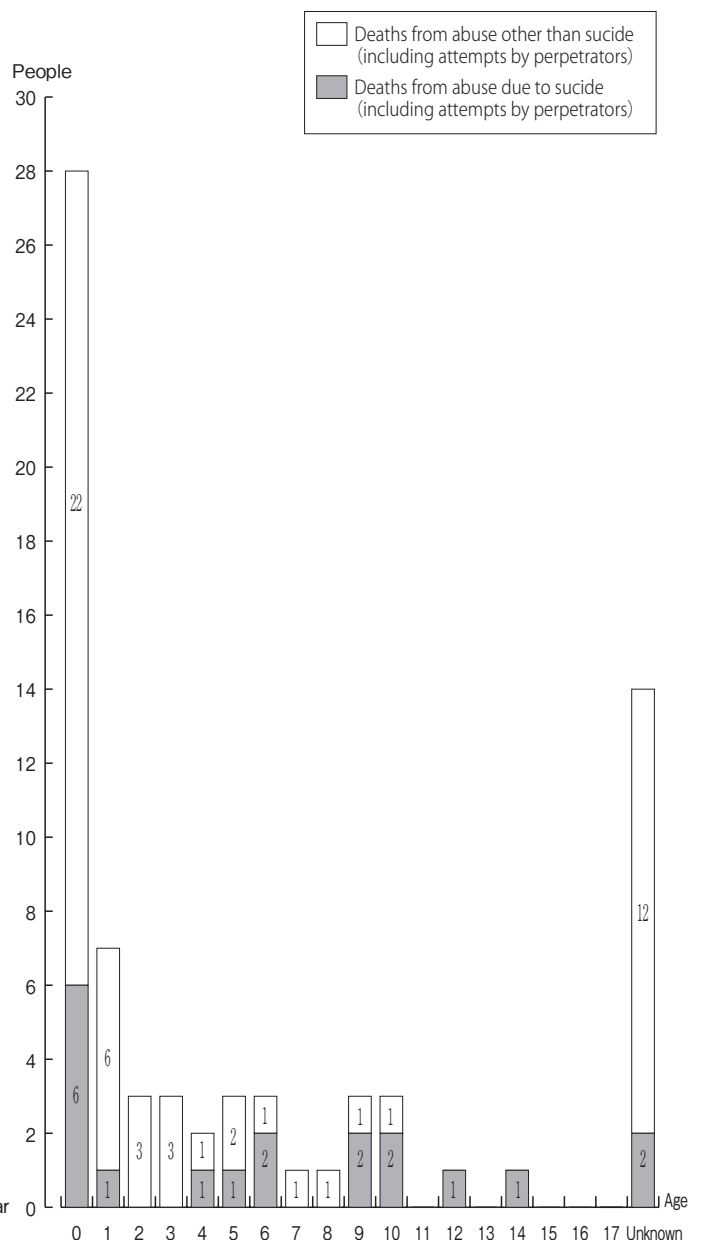
▲3-1 : Trends in the suicide rates of 5 to 19 year-olds
(from the vital statistics of the Ministry of Health, Labor, and Welfare)

4 Child abuse



▲4-1 : Trends in the number of child deaths from abuse

(from the "Sixteenth Report on the Results of Reviews of Deaths by Child Abuse and Other Cases" by the Ministry of Health, Labor, and Welfare)



▲4-2 : Ages of children who died from abuse

(from the "Sixteenth Report on the Results of Reviews of Deaths by Child Abuse and Other Cases" by the Ministry of Health, Labor, and Welfare)

According to the definition used by the Ministry of Health, Labor, and Welfare in Japan, "abuse deaths" are those due to child abuse and are classified with "abuse deaths outside collective suicide (including attempts by perpetrators)" and "abuse deaths by collective suicide." Looking at the breakdown, there have been more cases of "abuse deaths by collective suicide" in the last few years. In addition, the proportion of children dying because of abuse is by far the greatest at the age of 0 years old, a group that accounts for 38.4% of such deaths.

[Definition of terms by the Ministry of Health, Labor, and Welfare]

What is an "abuse death"?

"Abuse deaths" are deaths caused by child abuse and are categorized with "deaths from abuse other than suicide" and "deaths from abuse due to suicide (including attempts by perpetrators)." Since the 8th periodic report was released, cases that had been classified as "abuse deaths" were changed to "abuse deaths for reasons other than psychiatric conditions." The cases that had been classified as "psychic deaths" were changed to "abuse deaths for reasons other than psychiatric conditions."

1 Low birth-weight infants

▼1-1 : Trends in the percentage of low birth-weight infants by weight, boys (%)

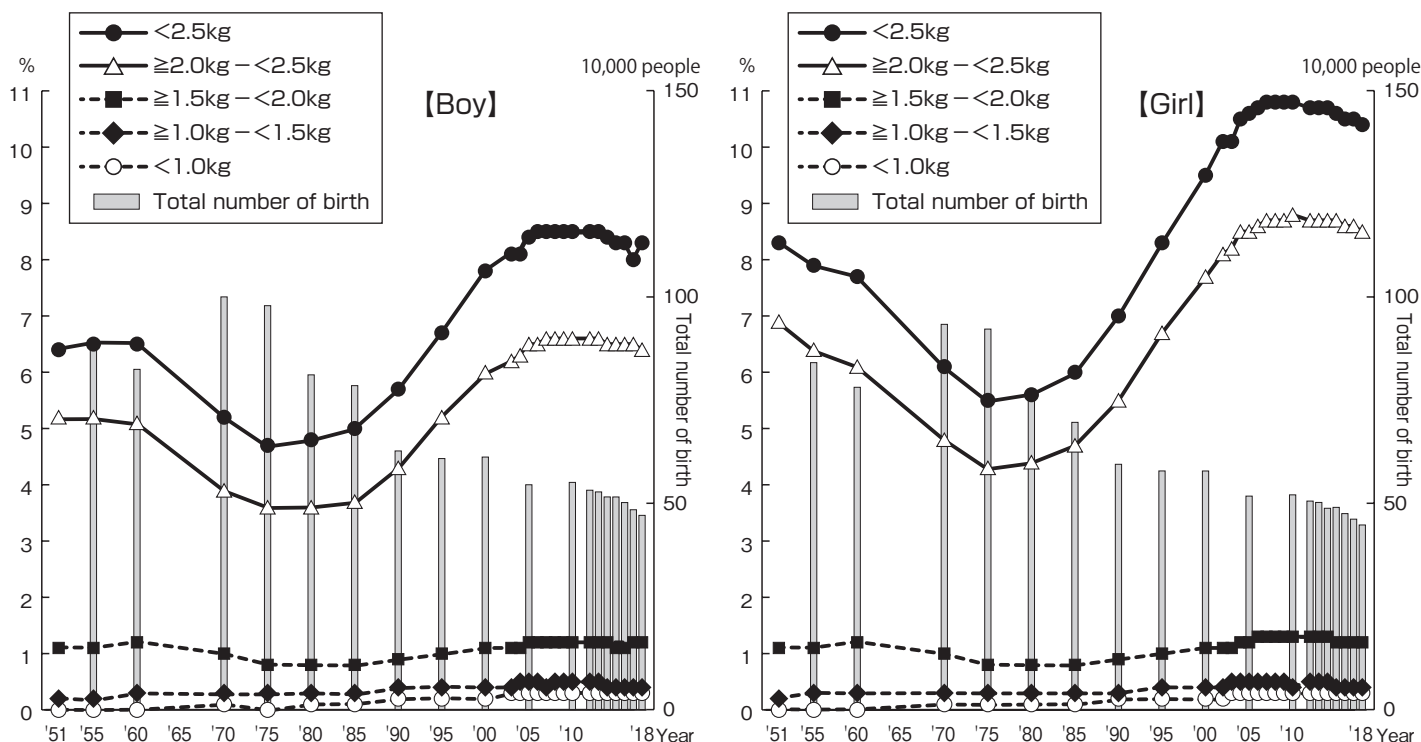
Boy	1951	1960	1970	1980	1990	2000	2007	2012	2013	2014	2015	2016	2017	2018
Total number of birth	1,094,641	824,761	1,000,403	811,418	626,971	612,148	559,847	531,781	527,657	515,533	515,452	501,880	484,449	470,851
Birth weight	3.14	3.14	3.22	3.23	3.16	3.07	3.05	3.04	3.04	3.04	3.04	3.05	3.05	3.05
Total number	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100
<1.0kg	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
≥1.0kg - <1.5kg	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0	0.4
≥1.5kg - <2.0kg	1.1	1.2	1.0	0.8	0.9	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.2	1.2
≥2.0kg - <2.5kg	5.2	5.1	3.9	3.6	4.3	6.0	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.4
≤2.5kg	6.4	6.5	5.2	4.8	5.7	7.8	8.5	8.5	8.5	8.4	8.3	8.3	8.0	8.3

Note 1: Those with unspecified birth weights were excluded from this percentage. Note 2: No data were available for 2011. Note 3: The value is given as published.

▼1-2 : Trends in the percentage of low birth-weight infants by weight, girls (%)

Girl	1951	1960	1970	1980	1990	2000	2007	2012	2013	2014	2015	2016	2017	2018
Total number of birth	1,043,048	781,280	933,836	765,471	594,614	578,399	529,971	505,450	502,159	488,006	490,225	475,098	461,616	447,549
Birth weight	3.06	3.06	3.13	3.14	3.08	2.99	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96
Total number	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100
<1.0kg	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
≥1.0kg - <1.5kg	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
≥1.5kg - <2.0kg	1.2	1.3	1.0	0.8	0.9	1.1	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2
≥2.0kg - <2.5kg	6.9	6.1	4.8	4.4	5.5	7.7	8.7	8.7	8.7	8.7	8.7	8.6	8.6	8.5
≤2.5kg	8.3	7.7	6.1	5.6	7.0	9.5	10.8	10.7	10.7	10.7	10.6	10.5	10.5	10.4

Note 1: Those with unspecified birth weights were excluded from this percentage. Note 2: No data were available for 2011. Note 3: The value is given as published.



Note: Low birth-weight infants are defined as those weighing under 2,500g. Very low birth-weight infants are defined as those weighing under 1,500g. Extremely low birth-weight infants are defined as those weighing under 1,000g.

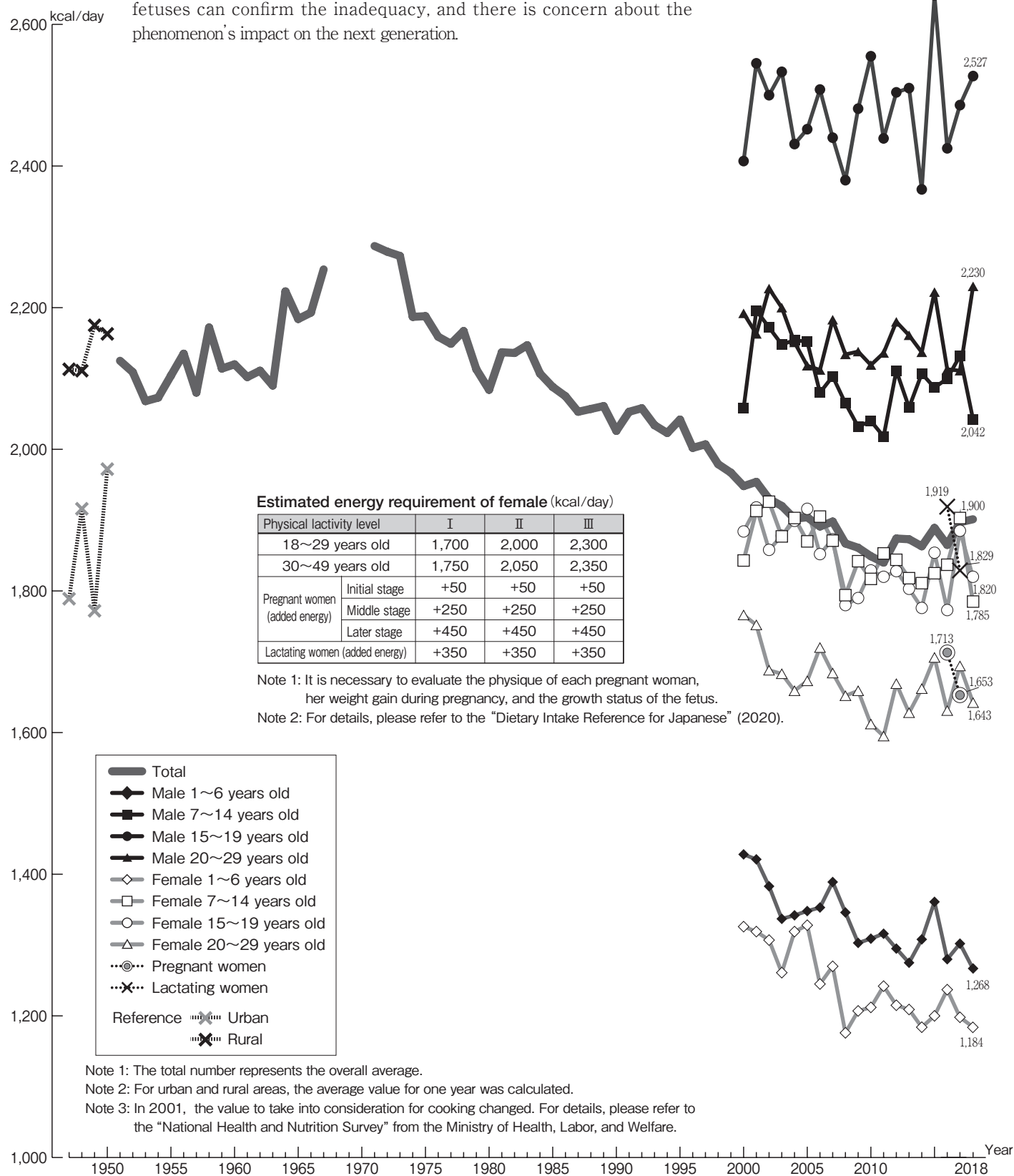
▲1-3 : Trends in the percentage of low birth-weight infants and number of births

(1-1~1-3 : from the vital statistics of the Ministry of Health, Labor, and Welfare)

The average weight at birth has not changed significantly over the last decade, but the number of live births is still declining. The proportion of "low birth-weight infants" with a birth weight of under 2,500g is used as an indicator of the health improvement effect of supporting developing countries and as an indicator of the health status of the entire population. The proportion of low birth-weight infants has been increasing since around 1980, it peaked in 2007, and it is now flat. However, according to UNICEF's "Report Card 16" (2020), the proportion of low birth-weight infants is the worst 2 out of 41 countries, and the rate is still high.

2 Energy intake

The number peaked in 1971 and has been decreasing incrementally since then. The tendency is especially noticeable from one to six years of age. In addition, even pregnant women who require a lot of energy to feed their fetuses can confirm the inadequacy, and there is concern about the phenomenon's impact on the next generation.



▲2-1 : Trends in energy intake

(from the "National Health and Nutrition Survey" by the Ministry of Health, Labor, and Welfare)

Japanese cuisine is attracting attention as a healthy diet world-wide, but its balance of nutrients has changed over the years, and it is believed that the ideal balance occurred around 1975.

Balance of energy-producing nutrients

The balance of energy-producing nutrients is based on the proportions of proteins, qualities, and carbohydrates (including alcohol) to the total energy intake (% energy).

◆Target amount (from the “Dietary Intake Reference for Japanese” (2020))

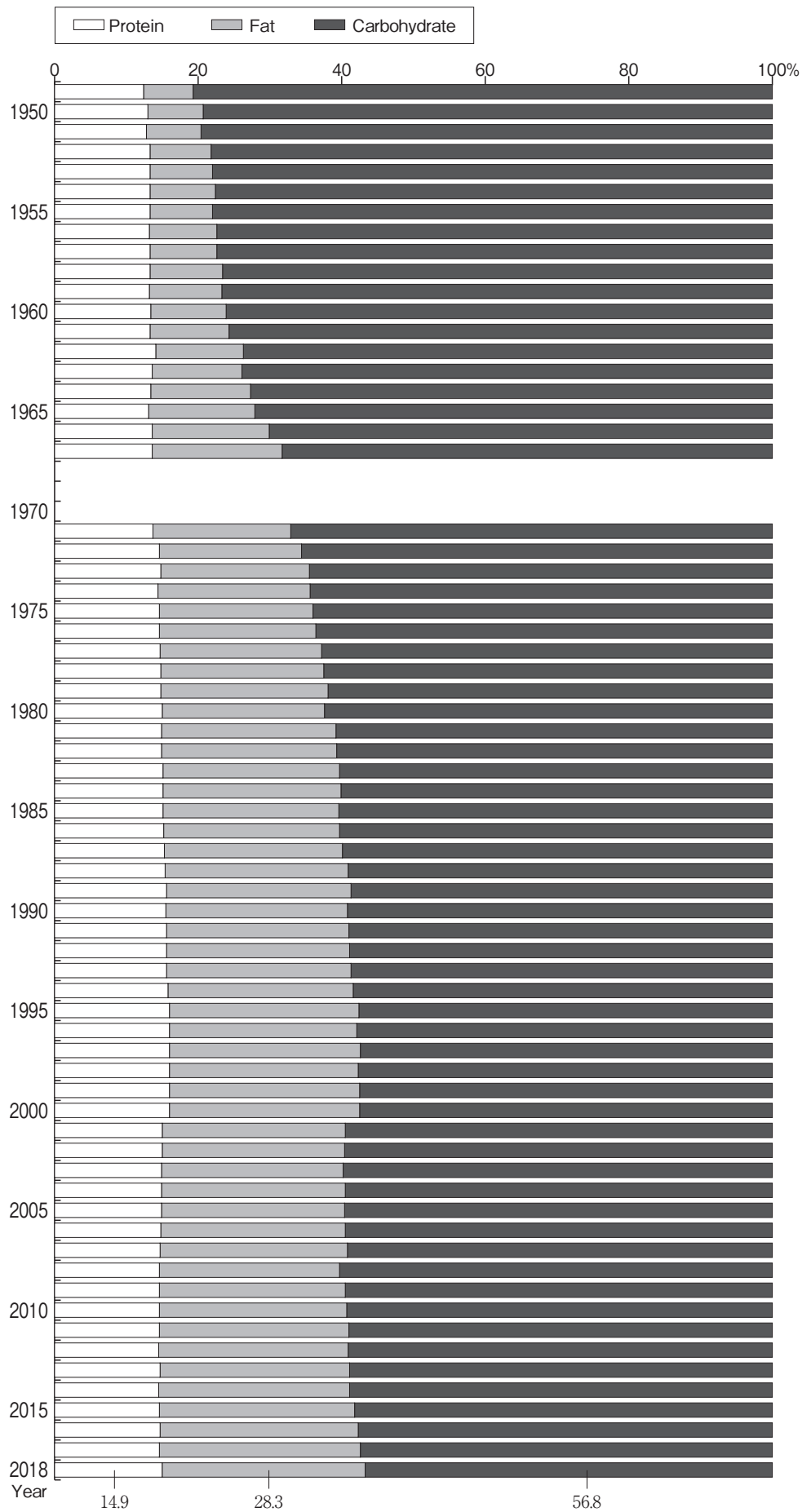
Protein should account for 13~20 (% energy)

Fat should account for 20~30 (% energy)

Carbohydrates should account for 50~65 (% energy)

Note 1: For men and women aged 1~39.

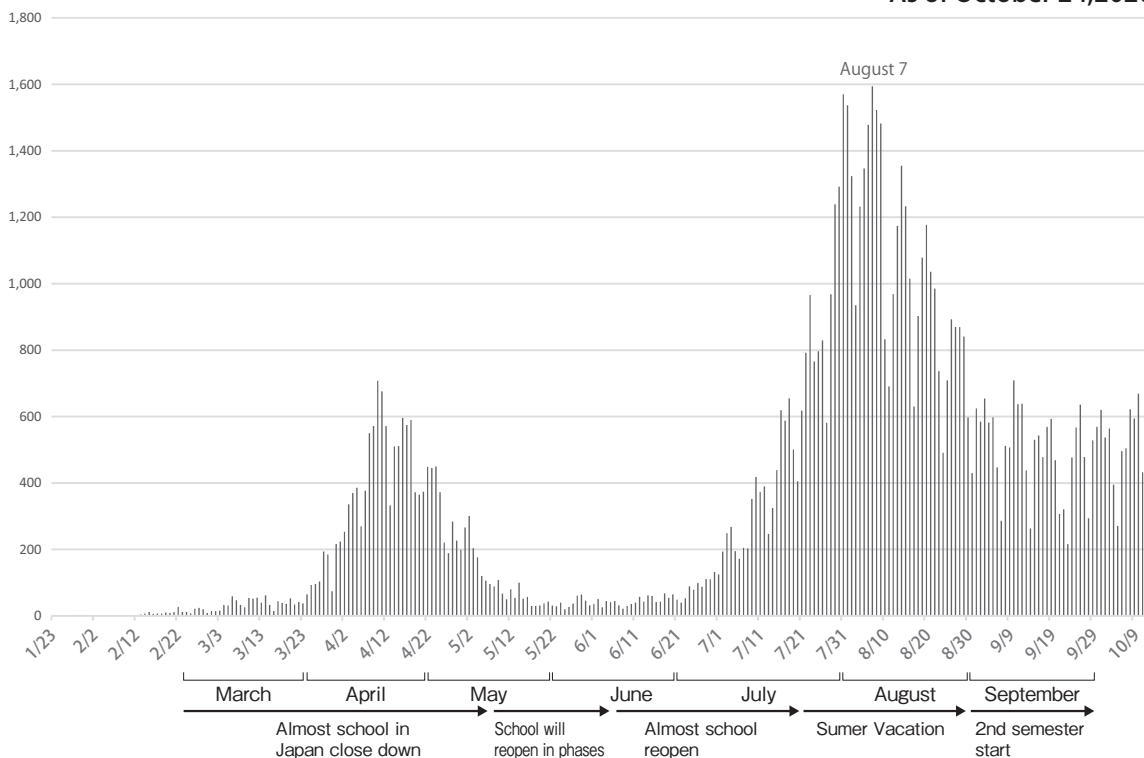
Note 2: For details, please refer to the “Dietary Intake Reference for Japanese” (2020).



▲2-2 : Trends in the balance of energy-providing nutrients
(from the “National Health and Nutrition Survey” by the Ministry of Health, Labor, and Welfare)

3 COVID-19

As of October 24, 2020

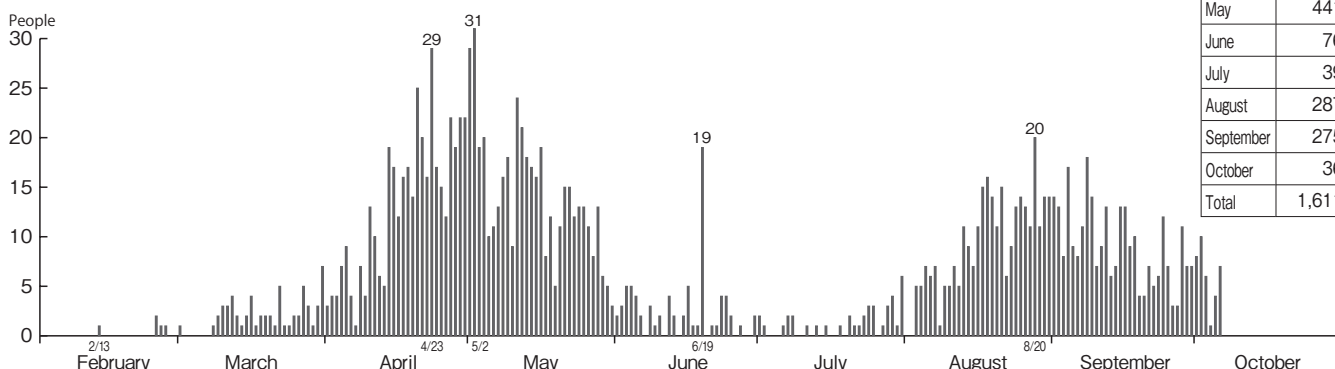


Note 1: In cases in which prefectures reported data to the national government for several successive days, the data were retroactively recorded from the original reporting date. The figures have been examined to eliminate duplicate cases.
Note 2: Any cases in Tokyo that were not reported before May 10 were added as if they had been reported on a fixed date.

▲3-1 : Trends in the number of new coronavirus cases in Japan as of October 14, 2020

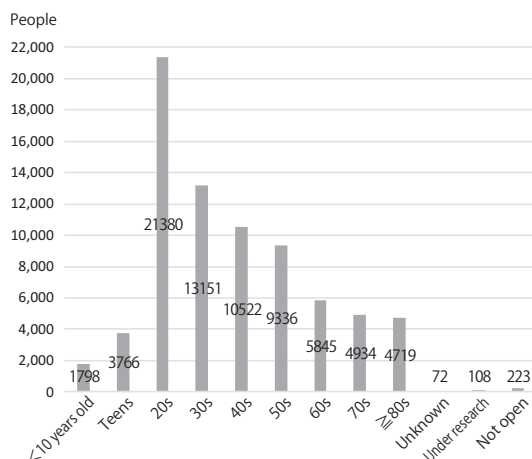
(from domestic outbreaks, number of positive cases, and number of deaths)

(<https://www.mhlw.go.jp/stf/covid-19/kokunainohasseijoukyou.html>) by the Ministry of Health, Labor, and Welfare)



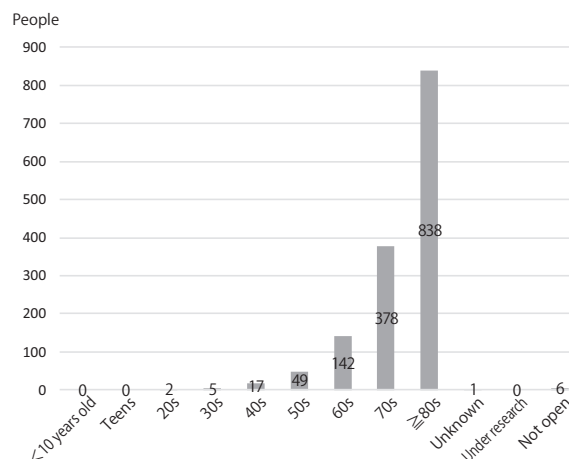
▲3-2 : Trends in the number of deaths due to the novel coronavirus in Japan as of October 16, 2020

(from the vital statistics of the Ministry of Health, Labor, and Welfare)



▲3-3 : Number of new coronavirus cases by age in Japan as of September 16, 2020

(3-3, 3-4 : from the domestic outbreak trends as of September 16 (<https://www.mhlw.go.jp/content/10906000/000657357.pdf>) by the Ministry of Health, Labor, and Welfare)



▲3-4 : Number of deaths due to the novel coronavirus by age in Japan as of September 16, 2020

Monthly number of infected people

February	230 人
March	1,992 人
April	12,190 人
May	2,478 人
June	1,865 人
July	17,620 人
August	32,114 人
September	15,200 人
October	2,936 人
Total	86,625 人

Monthly number of infected people

February	5 人
March	61 人
April	391 人
May	441 人
June	76 人
July	39 人
August	287 人
September	275 人
October	36 人
Total	1,611 人

▼3-5 : Timeline of events related to the novel coronavirus

Year	Month	Day	Events
2019	12		A succession of unexplained viral pneumonia cases occurs in Wuhan, China.
2020	1	9	A Chinese group of experts detects the novel coronavirus.
		16	The infection of a man who returned from Wuhan City on the 6th (first in Japan) is confirmed.
		31	The WHO declares a "Public Health Emergency of International Concern" (PHEIC).
	2	5	Ten passengers and crew members on the cruise ship "Diamond Princess" are confirmed as infected, marking the first outbreak in Japan.
		11	The WHO names the novel coronavirus infection "COVID-19."
		13	A woman in her 80s dies in Kanagawa Prefecture (first in Japan).
		27	The prime minister requests that all schools nationwide close beginning on March 2nd.
		28	The governor of Hokkaido unexpectedly announces a "state of emergency."
	3	11	The WHO declares that the outbreak can be regarded as a "pandemic."
		20	UNICEF requests that governments ensure the safety and health of children; action guidelines are also announced.
		24	It is decided that the Olympic and Paralympic Games should be postponed.
	4	1	Tokyo Metropolitan High School decides to extend its closure until May 6th.
		4	Oita Prefecture High School students sign a petition to continue the school's closure.
		6	The executive director of the United Nations Women's Organization releases a statement titled "Violence Against Women and Girls: Shadow Pandemic."
		7	The prime minister declares a "state of emergency" in seven prefectures: Tokyo, Kanagawa, Saitama, Chiba, Osaka, Hyogo, and Fukuoka. The Ministry of Education, Culture, Sports, Science, and Technology announces that the GIGA school plan to distribute personal computers to elementary and junior high school students, which was set to be enacted in 2023, will be enacted by the end of this fiscal year.
		8	A high school student in Ibaraki Prefecture asks for uniform school closures in all prefectures, and about 80 students stay home from school on the 9th. The United Nations Committee on the Rights of the Child warns of the grave physical, emotional, and psychological effects of the COVID-19 pandemic on children and calls on states to protect the rights of children.
		16	The "state of emergency" is expanded to include all prefectures (until May 6th).
		18	Over 10,000 people are infected in Japan.
		19	Third year high school students in Osaka prefecture sign "Spring Once Again: New Semester in September!" on Twitter.
		24	Nationwide telemedicine treatment begins.
		25	Citizens are advised not to use playground equipment in metropolitan parks.
		26	The Inter-High School Competition is canceled.
		27	The National Network of Physical and Mental Health in Japanese Children posts a message on its website titled "Children's Bodies and Minds Affected by the Coronavirus Infection." The Japan Sports Agency posts "New Coronavirus Infection Countermeasures: Points to Note in Sports/Exercise and Exercise Cases" on its website.
		29	The Japan Midwives' Association set up a dedicated call center for consultations with pregnant women and parents of infants.
		30	UNICEF, UNESCO, UN WFP, and The World Bank jointly announce their new "Framework for Reopening Schools."
	5	4	Over 15,000 people are infected domestically.
		4	Expert meeting is held to present a "new lifestyle" for preventing the spread of infection.
		6	The "state of emergency" is extended until the end of May.
		14	The emergency declaration is canceled in 39 prefectures with a reduced number of infected people.
		15	The Ministry of Education, Culture, Sports, Science, and Technology announces a policy to allow students' study requirements to be carried over to the next year or later except when students are in their final year of school.
		20	The Japan Pediatric Society publishes the "current status of medical knowledge regarding novel coronavirus infections in children."
		21	The "state of emergency" in Osaka, Hyogo, and Kyoto ends, while it continues for those in Hokkaido and four metropolitan prefectures.
		22	The Ministry of Education, Culture, Sports, Science, and Technology prepares a "Hygiene Management Manual for Novel Coronavirus Infections in Schools: New School Lifestyle."
		25	The "state of emergency" is canceled nationwide, and the prime minister enacts policies to gradually lift restrictions. The Japan Pediatric Association announces the danger of wearing masks for children under two years of age.
		29	The Ministry of Health, Labor, and Welfare and the Ministry of the Environment publish a leaflet on heat stroke prevention that highlights the added risk of heat stroke when wearing a mask.
	6	1	Ninety-nine percent of the elementary and junior high schools and 96 percent of the high schools that were closed are reopened.
		2	The Tokyo Metropolitan Government announces a "Tokyo Alert" for the first time (released on June 12th).
		8	The Ministry of Health, Labor, and Welfare creates a leaflet to emphasize the importance of consultation with mothers who are hesitant to undergo vaccinations and infant health examinations.
		19	The WHO warns that the pandemic is accelerating, the number of infections worldwide exceeds 8.3 million, and the death toll reaches 453,834.
		29	The number of infections worldwide exceeds 10.1 million and the death toll reaches 501,000.
	7	28	Over 1,000 deaths in Japan are recorded (excluding the deaths on the cruise ship "Diamond Princess").
	8	7	The highest number of new infections ever is confirmed to be 1,607.
		11	The number of infections worldwide exceeds 20 million.

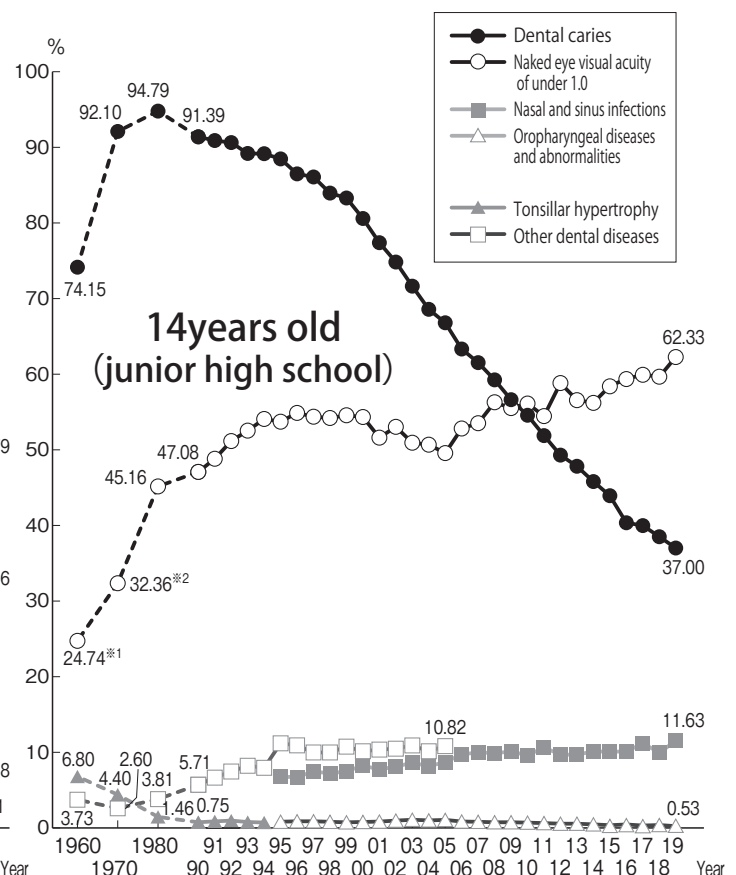
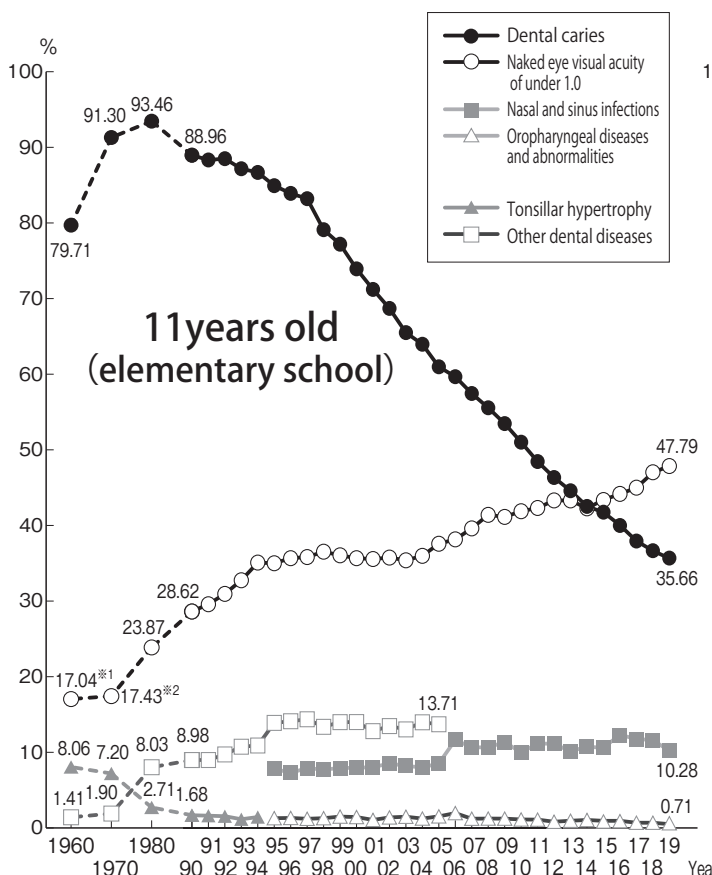
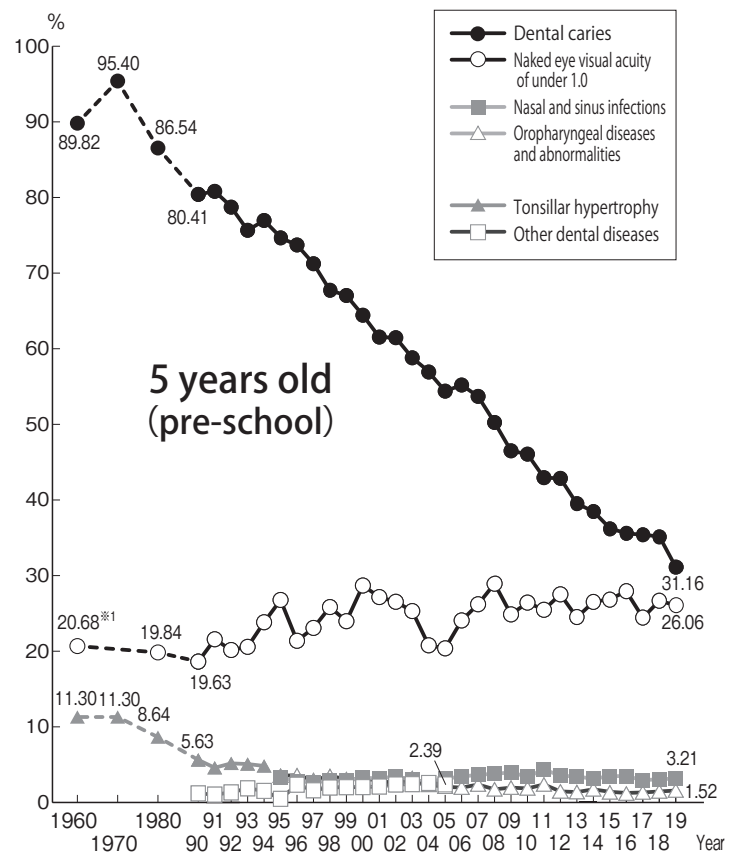
4 Diseases and abnormalities

“Dental caries” was a disease that most children experienced at some point from the 1960s to the 1980s. However, its prevalence has been decreasing since then. Contrariwise, the data indicate that “naked eye visual acuity of under 1.0” is becoming more common. Thus, it has been most prevalent among 11 year-olds since 2015 and among 14 year-olds since 2010. However, other diseases (nasal and sinus infections, etc.) continue to have a morbidity rate of, at most, 10%.

Note: Since 2006, if the naked-eye vision test is omitted for those with corrected vision (those who wear glasses or contact lenses), none of the results for any of the students (male or female) in the class to which they belong are included. Since 2012, the naked-eye vision of those with corrected vision has been recorded. However, it is not required that the naked eye vision of people with corrected vision be tested, and it is only reported if it is done.

※1 Values for fiscal year 1961

※2 Values for fiscal year 1969



Note: “Other dental diseases” has been divided into “dentition and occlusion,” “temporomandibular joint issue,” “plaque-related condition,” “gingival condition,” and “other diseases and abnormalities” since 2006.

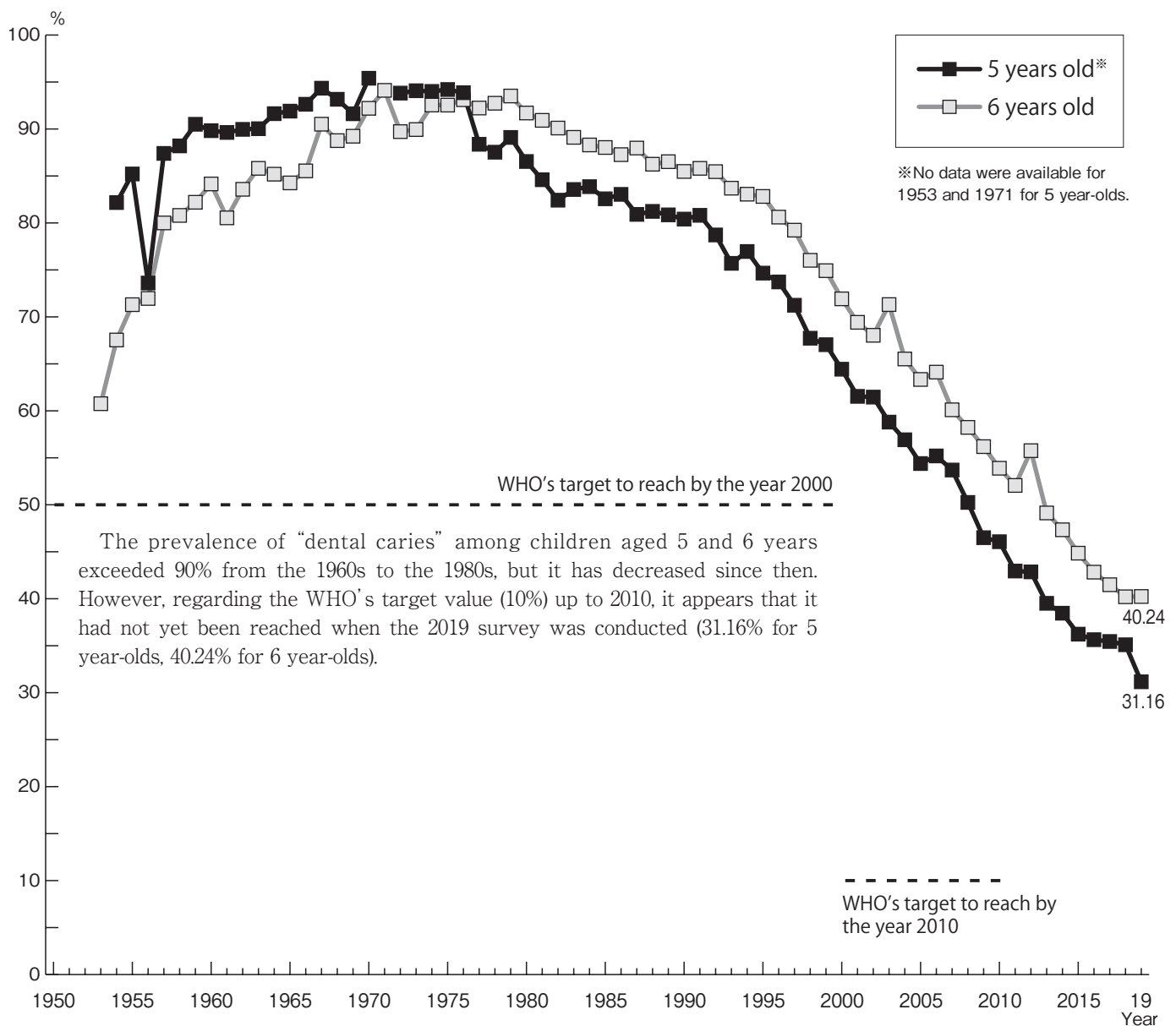
▲4-1 : Trends in the morbidity rates of diseases and abnormalities in 5, 11, and 14 year-olds
(from the “Annual Report of School Health Statistics Research” by the Ministry of Education, Culture, Sports, Science, and Technology)

5 Dental caries

▼5-2 : Trends in the morbidity rate of those with dental caries among 5 and 6 year-olds

(%)

Year	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
5 years old		82.17	85.21	73.60	87.40	88.20	90.50	89.82	89.63	89.96	90.03	91.63	91.90	92.63	94.34	93.16	91.62
6 years old	60.76	67.54	71.30	71.96	80.00	80.80	82.20	84.15	80.54	83.58	85.81	85.19	84.26	85.54	90.51	88.76	89.23
Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
5 years old	95.40		93.82	94.07	94.00	94.20	93.86	88.37	87.53	89.10	86.54	84.60	82.42	83.56	83.86	82.57	83.04
6 years old	92.20	94.11	89.72	89.94	92.55	92.54	93.12	92.23	92.74	93.51	91.70	90.92	90.10	89.11	88.30	88.03	87.27
Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
5 years old	80.91	81.23	80.86	80.41	80.81	78.72	75.70	76.96	74.66	73.72	71.24	67.73	67.04	64.43	61.54	61.46	58.80
6 years old	87.97	86.25	86.52	85.48	85.81	85.46	83.70	83.06	82.82	80.62	79.23	76.02	74.92	71.92	69.42	68.04	71.31
Year	2004	2005	2006	2007	2008	2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
5 years old	56.92	54.39	55.20	53.70	50.25	46.50	46.07	46.07	42.95	42.86	39.51	38.46	36.23	35.64	35.45	35.10	31.16
6 years old	65.52	63.34	64.12	60.11	58.24	56.19	53.89	53.89	52.06	55.76	49.13	47.34	44.85	42.83	41.49	40.21	40.24



▲5-1 : Trends in the morbidity rate of those with dental caries among 5 and 6 year-olds

(5-1, 5-2 : from the "Annual Report of School Health Statistics Research" by the Ministry of Education, Culture, Sports, Science, and Technology)

▼5-4 : Trends in the number of DMFT in 12 year-olds

		1984	1985	1990	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Boy	D	1.28	1.25	1.15	0.93	0.84	0.78	0.77	0.71	0.71	0.68	0.63	0.58	0.56	0.52	0.56	0.51	0.47	0.44	0.40	0.38	0.36	0.33	0.32	0.30	0.28	0.25	0.23
	M	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
	F	3.00	2.94	2.73	2.44	2.21	2.04	1.88	1.71	1.56	1.40	1.27	1.14	1.06	0.98	0.92	0.86	0.78	0.73	0.68	0.63	0.60	0.57	0.50	0.46	0.47	0.42	0.40
	Total	4.33	4.25	3.91	3.41	3.08	2.85	2.68	2.46	2.29	2.08	1.92	1.75	1.64	1.57	1.50	1.39	1.27	1.17	1.10	1.03	0.98	0.92	0.83	0.77	0.76	0.68	0.63
Girl	D	1.42	1.38	1.30	1.02	0.90	0.85	0.82	0.76	0.79	0.71	0.68	0.66	0.65	0.63	0.63	0.59	0.52	0.48	0.42	0.39	0.39	0.37	0.36	0.33	0.31	0.28	0.26
	M	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.00	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
	F	3.71	3.59	3.36	2.97	2.67	2.46	2.30	2.05	1.91	1.71	1.54	1.38	1.32	1.18	1.10	1.06	0.97	0.89	0.85	0.76	0.71	0.70	0.60	0.57	0.57	0.52	0.50
	Total	5.19	5.02	4.71	4.04	3.61	3.35	3.17	2.85	2.74	2.46	2.26	2.08	2.00	1.85	1.77	1.68	1.52	1.36	1.30	1.17	1.12	1.09	0.98	0.92	0.89	0.81	0.77
Total	D	1.36	1.31	1.22	0.98	0.87	0.81	0.79	0.73	0.75	0.69	0.65	0.62	0.60	0.60	0.59	0.55	0.52	0.46	0.41	0.39	0.37	0.35	0.34	0.31	0.30	0.27	0.24
	M	0.06	0.05	0.04	0.05	0.04	0.04	0.04	0.04	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
	F	3.35	3.26	3.04	2.69	2.43	2.25	2.09	1.88	1.73	1.55	1.40	1.25	1.19	1.08	1.01	0.96	0.90	0.81	0.76	0.69	0.66	0.64	0.55	0.51	0.52	0.47	0.45
	Total	4.75	4.63	4.30	3.72	3.34	3.10	2.92	2.65	2.51	2.24	2.09	1.91	1.82	1.71	1.63	1.54	1.44	1.29	1.20	1.10	1.05	1.00	0.90	0.84	0.82	0.74	0.70

Note: "DMFT" refers to the number of permanent teeth per person.

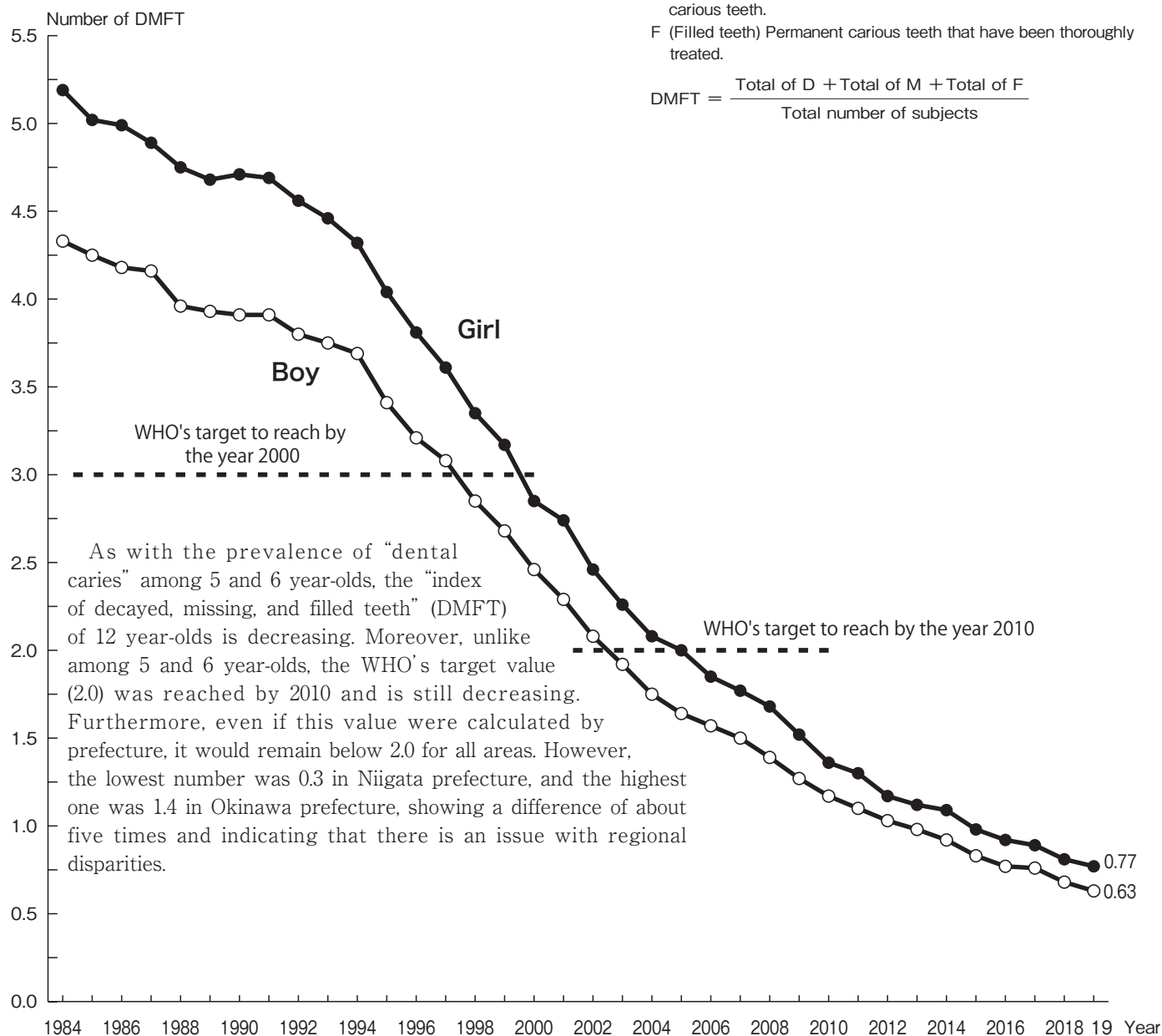
Method of calculating DMFT:

D (Decayed teeth) Permanent cuspids that have not been treated.

M (Missing teeth) Permanent teeth that have been removed due to carious teeth.

F (Filled teeth) Permanent carious teeth that have been thoroughly treated.

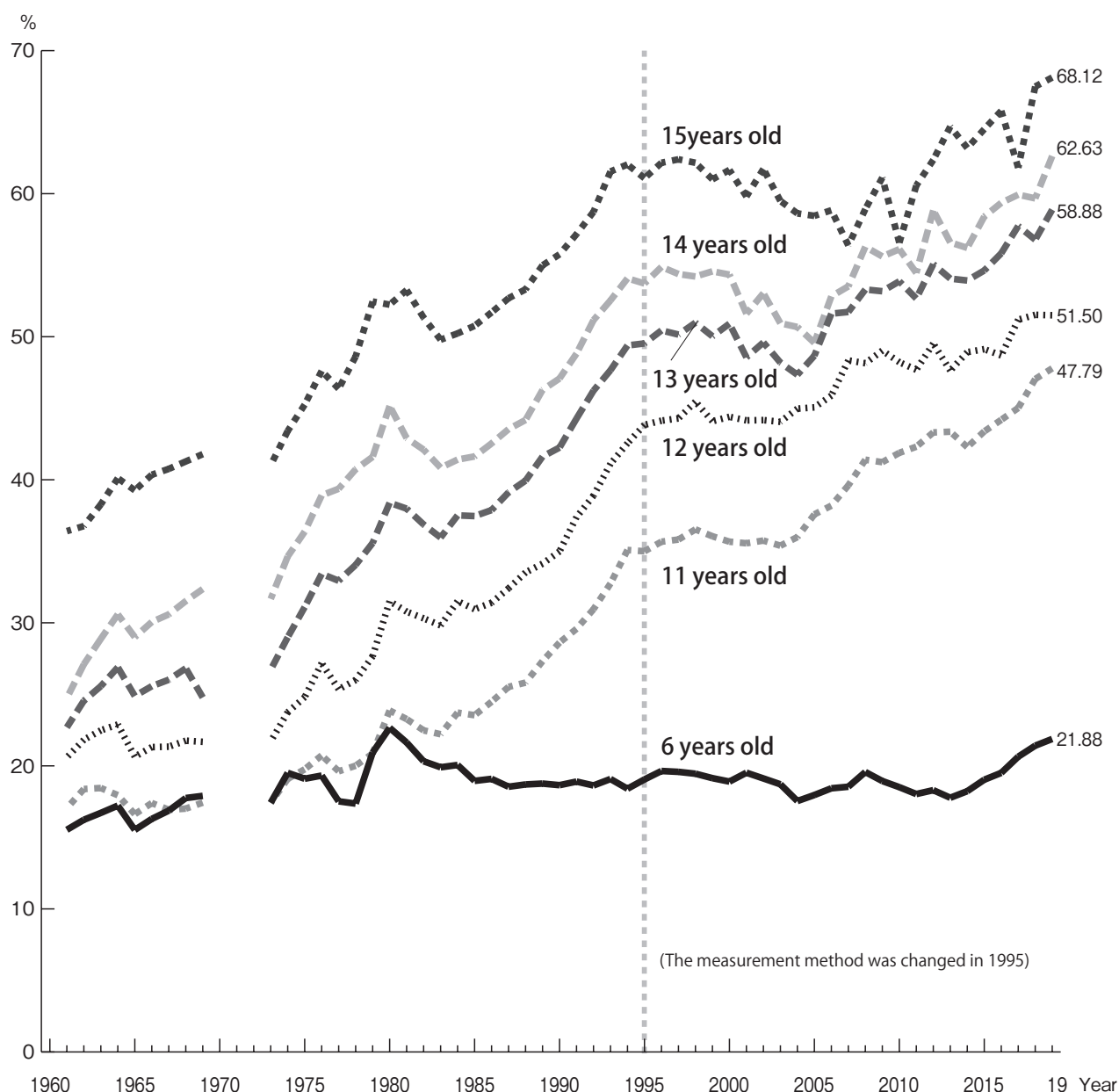
$$DMFT = \frac{\text{Total of D} + \text{Total of M} + \text{Total of F}}{\text{Total number of subjects}}$$



▲5-3 : Trends in the number of DMFT in 12 year-olds

(5-3~5-4 : from the "Annual Report of School Health Statistics Research" by the Ministry of Education, Culture, Sports, Science, and Technology)

6 Poor visual acuity

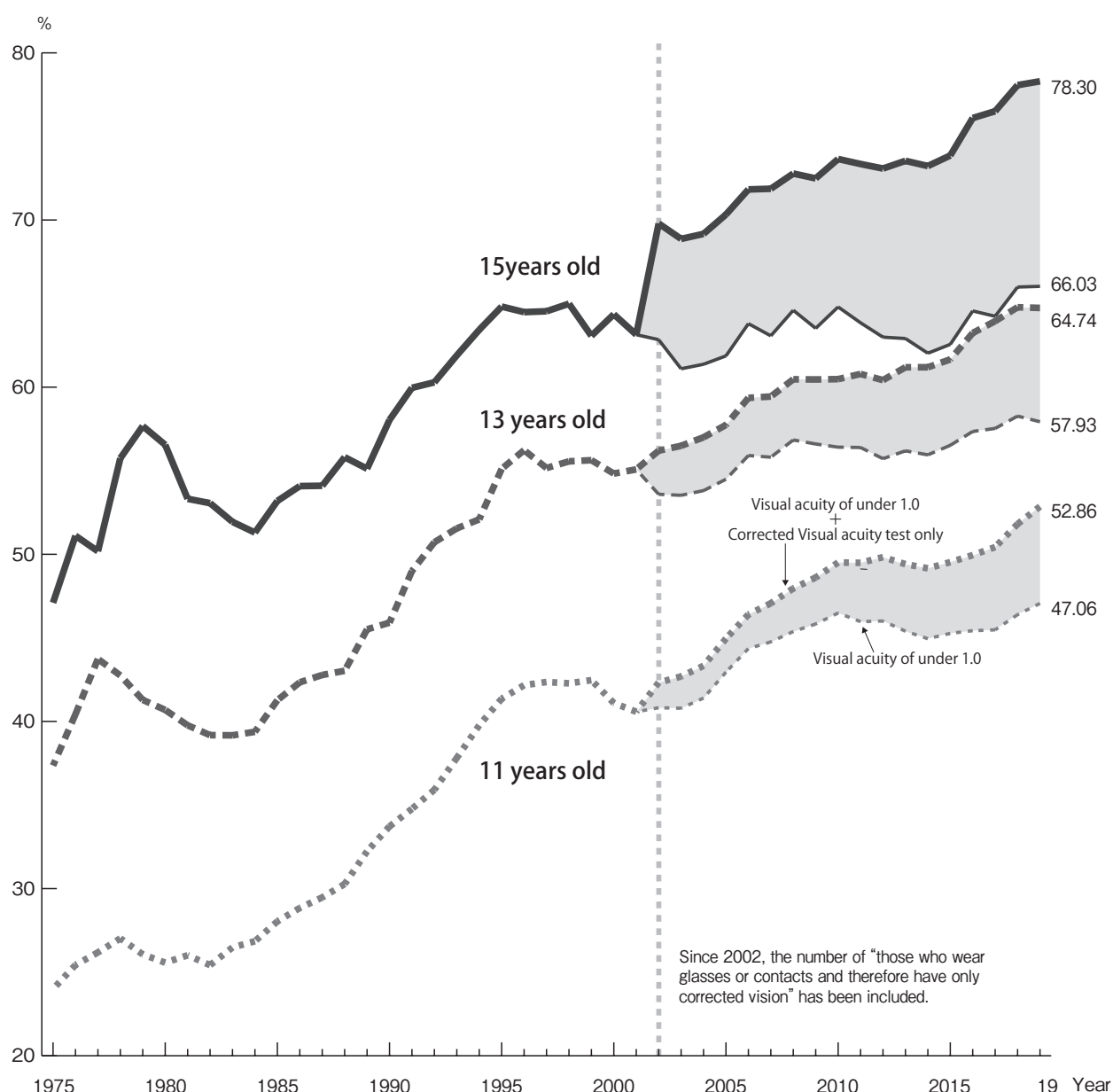


▲6-1 : Trends in the number of children who had visual acuity of under 1.0 among 6 and 11 to 15 year-olds
(from the “Annual Report of School Health Statistics Research” by the Ministry of Education, Culture, Sports, Science, and Technology)

The proportion of people with “naked eye visual acuity of under 1.0,” which remained in the range of 20-40% in the 1960s, began to increase in the 1970s and has continued to increase since then, although the speed of the increase seems to be gaining momentum.

During this period, in 1995, the measurement method used in school health examinations was changed so that those who wear eyeglasses or contact lenses only need to have a corrected visual acuity test. Therefore, children who wear eyeglasses are excluded from the group of children with “naked eye visual acuity of under 1.0,” and it is difficult to make an accurate comparison using the conventional data. This is probably the reason that “vision loss” seems to have leveled off since 1995. Moreover, since 2006, if there is someone with corrected visual acuity who does not undergo the naked eye visual acuity test, the visual acuity values of their classmates are not reported. Therefore, since 2006, the amount of data to be aggregated has become extremely small. It is believed that this is the reason that the trend has fluctuated greatly since 2006.

In any case, the downward trend does not appear to have improved, and this phenomenon is an urgent issue. Additionally, we must also deal with the questions of “Who is the test for?” and “What is the test for?”



▲6-2 : Trends in the number of children who had visual acuity of under 1.0 among 11, 13, and 15 year-olds in Tokyo
(from the "Annual Report of School Health Statistics Research in Tokyo" by the Tokyo Metropolitan Board of Education)

As mentioned on the previous page, while there have been changes in the visual acuity measurements and counting methods used nationwide, the response of the Tokyo Metropolitan Board of Education has been slightly unusual.

The figure shows the annual changes in the percentage of 11, 13, and 15 year-olds with naked visual acuity of under 1.0 in Tokyo. Even in Tokyo, the protocol was changed in 2002 so that those who wear eyeglasses and contact lenses only need to undergo a corrected visual acuity test. However, in Tokyo, the number (proportion) of people undergoing "measurement of corrected visual acuity only because they wear eyeglasses and contact lenses" has been calculated since then. Naturally, it can be assumed that the "measurement of corrected visual acuity only" will be under 1.0 on the visual acuity test of the naked eye, so we can add this group of people to that of "persons with naked eye visual acuity of under 1.0." According to the data, it appears that the proportion of people with poor eyesight is still increasing.

7 Obesity and thinness

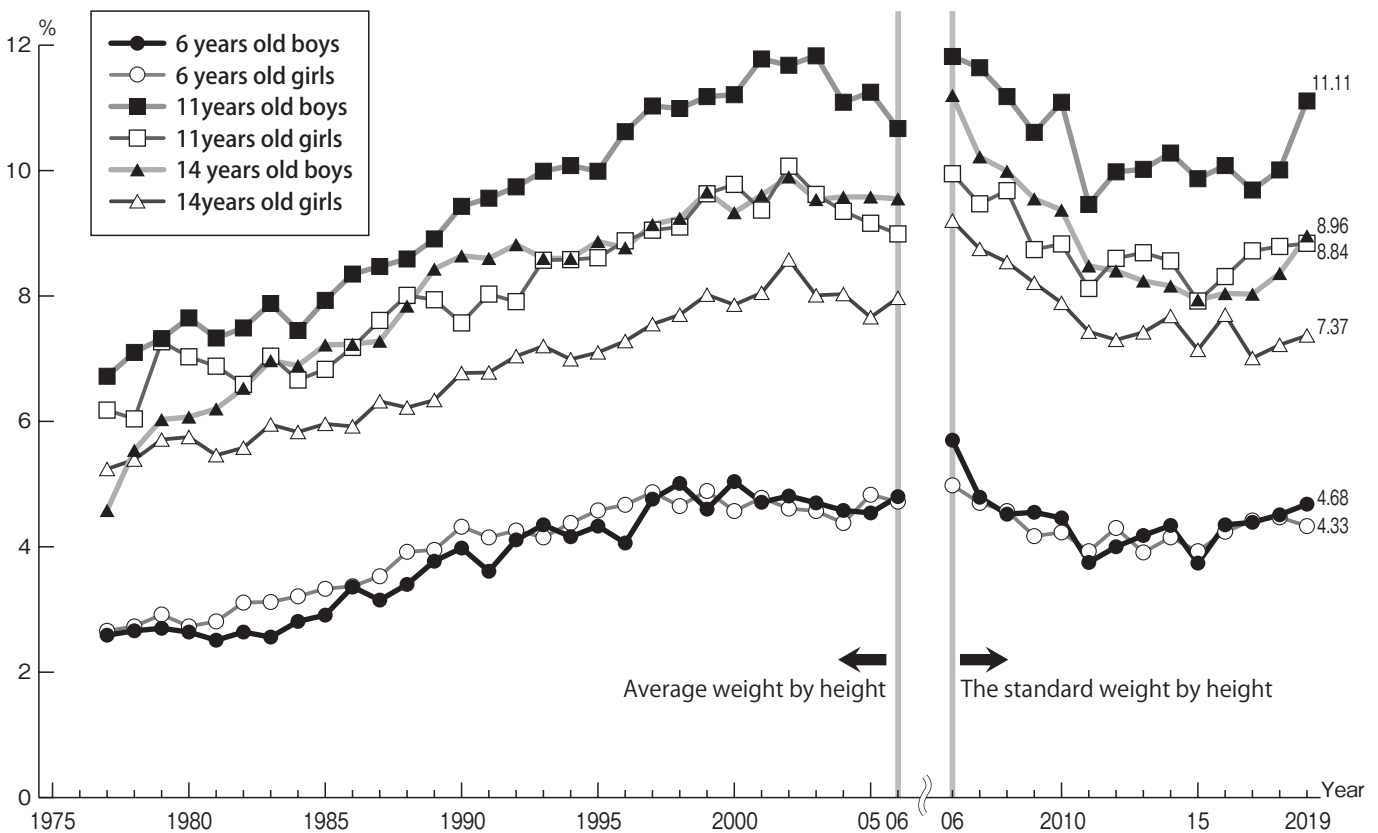
The incidence of obesity in children has increased since 1977, but it has been decreasing throughout the 2000s. Since the method of calculating obesity in children was changed in 2006, it has been observed that, after a period of flattening, it has been increasing again in recent years.

▼7-1 : Trends in the prevalence of obesity in children by age (Boy)

Year	1977	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	new 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Age																										
5	-	-	-	-	-	-	-	-	-	-	-	2.42	2.59	2.78	2.87	2.75	2.80	2.14	2.41	2.38	2.55	2.34	2.68	2.78	2.58	2.63
6	2.59	2.64	2.91	3.98	4.33	5.04	4.71	4.81	4.70	4.58	4.54	4.80	5.70	4.79	4.52	4.55	4.46	3.75	4.09	4.18	4.34	3.74	4.35	4.39	4.51	4.68
7	2.72	3.55	3.81	4.65	5.35	5.38	5.74	5.99	5.92	5.70	5.65	5.30	6.21	6.77	6.19	5.60	5.60	5.18	5.58	5.47	5.45	5.24	5.74	5.65	6.23	6.41
8	4.16	4.90	5.03	6.46	7.09	8.08	7.87	7.92	8.26	8.08	7.58	7.47	8.63	8.09	8.03	7.53	7.20	6.70	7.13	7.26	7.57	6.70	7.65	7.24	7.76	8.16
9	5.14	5.71	6.34	7.74	8.69	9.54	9.00	9.32	9.60	9.54	9.48	8.78	10.81	10.23	10.36	9.57	9.06	8.39	9.24	8.90	8.89	8.93	9.41	9.52	9.53	10.57
10	5.91	6.86	7.57	8.93	9.77	10.43	10.83	10.60	10.76	10.59	9.74	10.36	11.70	11.59	11.32	10.76	10.37	9.42	9.86	10.90	9.72	9.77	10.01	9.99	10.11	10.63
11	6.72	7.65	7.93	9.43	9.99	11.21	11.78	11.68	11.83	11.09	11.25	10.67	11.82	11.64	11.18	10.61	11.09	9.46	9.98	10.02	10.28	9.87	10.08	9.69	10.01	11.11
12	6.57	7.48	7.92	9.64	10.23	11.28	11.86	11.44	11.48	11.12	11.23	11.14	13.64	12.41	11.97	11.49	10.99	10.25	10.67	10.65	10.72	9.87	10.42	9.89	10.60	11.18
13	5.17	6.93	7.24	8.80	9.46	10.36	10.37	10.28	10.28	10.07	9.65	9.72	11.23	10.84	10.28	9.71	9.41	9.02	8.96	8.97	8.94	8.37	8.28	8.69	8.73	9.63
14	4.58	6.07	7.22	8.64	8.87	9.33	9.61	9.90	9.54	9.58	9.58	9.55	11.20	10.22	9.99	9.55	9.37	8.48	7.43	8.27	8.16	7.94	8.04	8.03	8.36	8.96
15	-	-	-	-	-	-	-	-	-	-	-	10.88	13.76	13.47	13.45	12.11	12.40	11.99	11.41	11.05	11.42	11.34	10.95	11.57	11.01	11.72
16	-	-	-	-	-	-	-	-	-	-	-	9.45	12.45	12.92	11.85	11.20	11.57	11.16	10.25	10.46	10.16	9.21	9.43	9.93	10.57	10.50
17	-	-	-	-	-	-	-	-	-	-	-	9.73	12.90	12.87	12.33	11.27	11.30	11.54	10.91	10.85	10.69	10.22	10.64	10.71	10.48	10.56

(Girl)

Year	1977	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	new 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Age																										
5	-	-	-	-	-	-	-	-	-	-	-	3.02	2.97	2.96	2.78	2.65	2.83	2.40	2.36	2.49	2.69	2.24	2.44	2.67	2.71	2.93
6	2.66	2.73	3.33	4.32	4.58	4.57	4.78	4.61	4.57	4.38	4.83	4.72	4.98	4.70	4.57	4.17	4.23	3.93	4.37	3.91	4.15	3.93	4.24	4.42	4.47	4.33
7	3.56	3.45	3.85	4.43	5.38	5.48	5.18	5.43	5.23	5.49	5.39	5.17	5.85	5.71	5.88	5.40	5.13	4.86	5.23	5.38	5.41	5.00	5.18	5.24	5.53	5.61
8	4.37	5.03	4.87	6.26	7.09	7.27	7.65	7.33	7.46	7.19	7.12	6.87	7.41	7.50	7.18	7.05	6.90	5.94	6.09	6.31	6.24	6.31	6.63	6.55	6.41	6.88
9	5.39	5.54	6.04	7.33	7.81	8.79	8.64	8.46	8.38	8.74	8.15	7.89	8.55	8.16	7.91	7.58	7.51	6.82	7.23	7.58	7.36	6.99	7.17	7.70	7.69	7.85
10	5.80	6.78	6.96	7.38	7.80	9.45	9.10	9.48	9.42	9.27	9.20	8.52	8.62	8.92	9.42	8.26	8.13	7.71	7.73	7.96	8.40	7.42	7.86	7.74	7.82	8.46
11	6.18	7.03	6.86	7.57	8.61	9.78	9.37	10.07	9.65	9.35	9.16	8.99	9.95	9.47	9.68	8.74	8.83	8.12	8.61	8.69	8.56	7.92	8.31	8.72	8.79	8.84
12	6.72	7.30	7.43	8.34	9.19	10.05	10.15	10.58	10.02	9.73	9.56	9.35	10.13	9.67	9.84	9.04	8.97	8.51	8.64	8.54	7.97	8.36	8.57	8.01	8.45	8.48
13	6.10	6.48	6.85	7.61	8.05	8.74	9.05	9.28	8.97	8.92	8.83	8.58	9.46	8.99	9.05	8.13	7.96	7.49	7.90	7.83	7.89	7.69	7.46	7.45	7.37	7.88
14	5.24	5.75	5.96	6.77	7.10	7.86	8.05	8.58	8.01	8.03	7.66	7.97	9.20	8.75	8.54	8.21	7.89	7.43	7.36	7.42	7.68	7.14	7.70	7.01	7.22	7.37
15	-	-	-	-	-	-	-	-	-	-	-	8.35	10.15	9.87	9.56	8.47	8.59	8.26	8.51	8.08	8.35	7.82	8.46	7.96	8.35	7.84
16	-	-	-	-	-	-	-	-	-	-	-	7.34	9.46	9.18	8.40	8.27	7.81	7.33	7.74	7.66	7.44	7.48	7.36	7.38	6.93	7.30
17	-	-	-	-	-	-	-	-	-	-	-	7.33	9.67	9.23	8.64	8.35	8.14	7.76	8.18	7.83	8.25	7.75	7.95	7.95	7.94	7.99



▲7-2 : Trends in the prevalence of obesity in children aged 6, 11, and 14 years

(7-1, 7-2 : from the "Annual Report of School Health Statistics Research" by the Ministry of Education, Culture, Sports, Science, and Technology)

Note: For the period from 1977-2005, the average weight by height by sex and age was used in the calculation, and children whose weight was 120% or more of the average were classified as "obese."

From 2006 onward, the obesity level has been calculated using the the standard weight by sex, age, and height in the following formula, with those whose obesity level is greater than the average by 20% or more classified as "obese":

Obesity level = (actual weight - standard weight by height) / standard weight by height × 100 (%)

▼7-3 : Trends in the prevalence of thinness in children by age
[Boy]

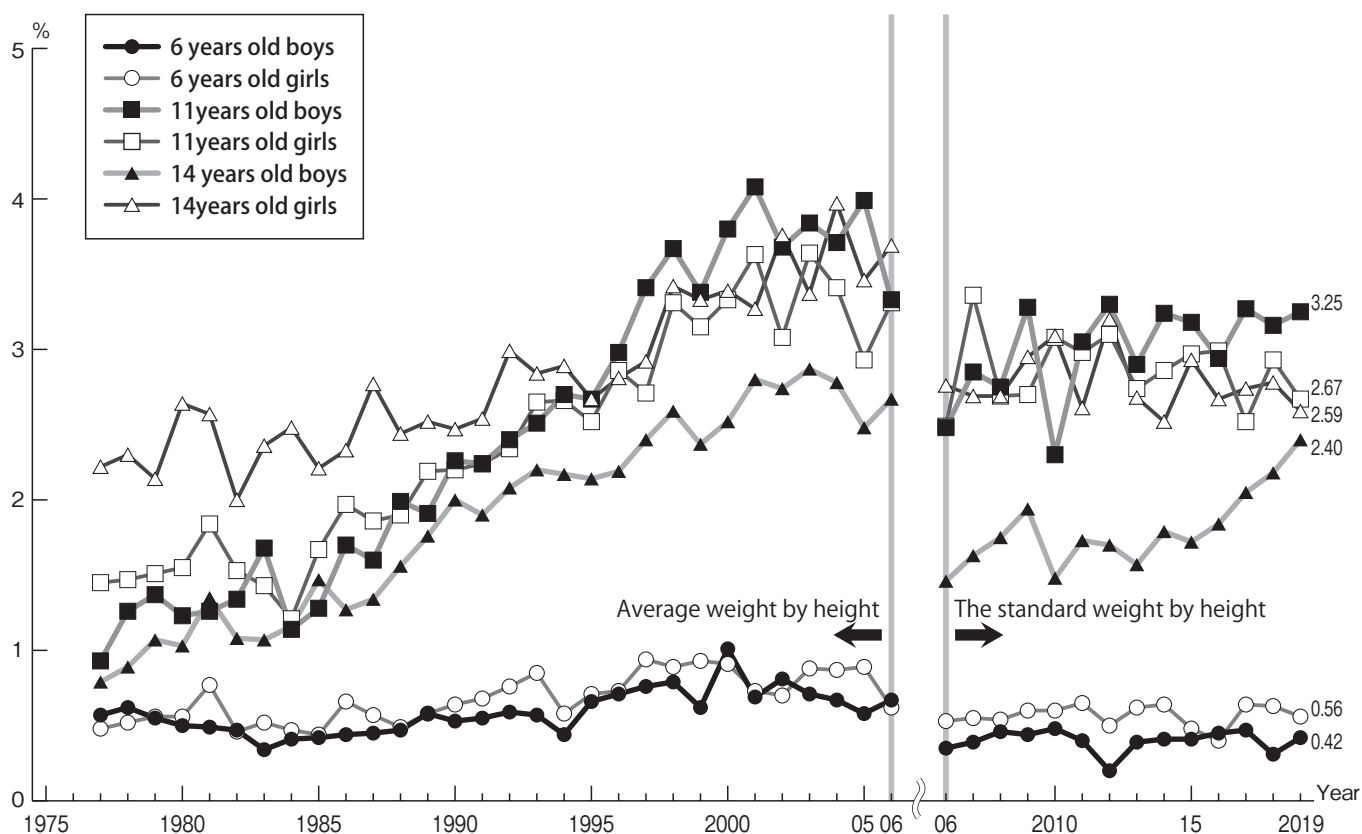
(%)

Year Age	1977	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	new 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
5	-	-	-	-	-	-	-	-	-	-	-	0.49	0.39	0.26	0.35	0.34	0.42	0.33	0.36	0.36	0.34	0.40	0.24	0.33	0.27	0.33
6	0.57	0.50	0.42	0.53	0.66	1.01	0.69	0.81	0.71	0.67	0.58	0.67	0.35	0.39	0.46	0.44	0.48	0.40	0.27	0.39	0.41	0.41	0.45	0.47	0.31	0.42
7	0.36	0.49	0.38	0.66	0.81	0.83	0.81	1.03	0.94	0.81	0.88	0.81	0.39	0.38	0.43	0.43	0.42	0.54	0.49	0.40	0.50	0.47	0.41	0.53	0.39	0.37
8	0.72	0.75	0.59	1.12	1.63	1.75	1.71	2.20	1.96	1.67	1.86	1.34	0.87	0.86	0.80	1.06	0.95	1.17	1.06	0.98	0.98	0.79	1.16	0.95	0.95	0.73
9	0.61	0.76	0.80	1.52	1.90	3.10	3.04	2.96	3.15	2.90	2.71	2.67	1.51	1.56	1.25	1.69	1.59	1.50	1.44	1.78	1.79	1.60	1.48	1.57	1.71	1.55
10	1.00	1.36	1.43	2.12	2.43	4.07	3.56	3.72	3.45	3.65	3.41	3.15	2.23	2.54	2.39	2.57	2.36	2.69	2.49	2.48	2.85	2.81	2.49	2.66	2.87	2.61
11	0.93	1.23	1.28	2.26	2.67	3.80	4.08	3.68	3.84	3.71	3.99	3.30	2.48	2.85	2.75	3.28	2.30	3.05	3.38	2.90	3.24	3.18	2.94	3.27	3.16	3.25
12	1.23	1.35	1.27	2.50	2.50	3.53	3.78	4.05	3.71	3.78	3.34	3.83	1.99	2.38	2.25	2.38	2.30	2.43	2.40	2.43	2.77	2.72	2.75	2.96	2.79	2.99
13	0.80	1.08	1.09	1.86	2.13	2.55	2.45	2.75	2.44	2.92	2.54	2.23	1.37	1.64	1.69	1.68	1.53	1.55	1.66	1.46	1.75	1.80	2.04	2.26	2.21	2.31
14	0.79	1.03	1.47	2.00	2.14	2.52	2.80	2.74	2.88	2.78	2.48	2.69	1.46	1.63	1.75	1.94	1.48	1.73	1.79	1.57	1.79	1.72	1.84	2.05	2.18	2.40
15	-	-	-	-	-	-	-	-	-	-	-	4.19	1.98	2.38	2.24	2.45	2.11	2.60	2.35	2.70	2.66	2.62	3.07	3.01	3.24	3.60
16	-	-	-	-	-	-	-	-	-	-	-	3.83	1.61	1.69	1.75	1.85	1.91	1.82	1.89	1.88	2.19	2.18	2.25	2.50	2.78	2.60
17	-	-	-	-	-	-	-	-	-	-	-	3.83	1.39	1.38	1.96	1.77	1.67	1.54	1.64	1.84	1.99	2.07	2.21	2.09	2.38	2.68

[Girl]

(%)

Year Age	1977	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	new 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
5	-	-	-	-	-	-	-	-	-	-	-	0.50	0.42	0.43	0.50	0.51	0.51	0.40	0.35	0.34	0.39	0.47	0.44	0.29	0.35	0.31
6	0.48	0.56	0.44	0.64	0.71	0.91	0.73	0.70	0.88	0.87	0.89	0.62	0.53	0.55	0.54	0.60	0.62	0.65	0.57	0.62	0.64	0.48	0.40	0.64	0.63	0.56
7	0.52	0.55	0.56	0.77	0.75	0.95	1.03	0.87	1.11	0.80	0.70	0.82	0.58	0.66	0.57	0.52	0.53	0.55	0.60	0.66	0.75	0.53	0.64	0.61	0.53	0.45
8	0.67	0.97	0.77	1.20	1.50	1.74	1.76	1.59	1.73	1.51	1.47	1.39	1.08	1.06	1.01	1.08	0.93	1.03	1.16	1.06	1.10	0.98	1.07	1.07	1.19	1.09
9	1.11	0.98	1.02	1.58	1.82	2.52	2.34	2.36	2.43	2.29	2.25	2.20	1.82	1.77	1.51	1.79	1.50	1.96	1.85	1.90	2.06	2.02	1.86	1.86	1.69	1.65
10	1.05	1.22	1.40	2.26	2.30	3.07	2.47	3.18	3.08	2.88	2.68	2.40	2.27	2.88	2.42	2.80	2.61	2.64	2.61	2.89	2.50	2.71	2.99	2.43	2.65	2.71
11	1.45	1.55	1.67	2.20	2.52	3.33	3.63	3.08	3.64	3.41	2.93	3.31	2.49	3.36	2.69	2.70	3.08	2.98	3.12	2.74	2.86	2.97	2.99	2.52	2.93	2.67
12	2.06	2.38	2.44	3.16	3.36	4.15	4.26	4.94	4.62	4.41	4.67	3.92	3.53	4.01	3.91	4.37	3.92	4.32	4.18	4.16	4.17	4.33	4.29	4.36	4.18	4.22
13	2.65	2.44	2.35	2.73	3.47	3.99	4.05	4.38	3.95	4.24	4.23	4.03	3.39	3.57	3.39	3.64	3.84	3.91	3.64	3.48	3.52	3.49	3.47	3.69	3.32	3.56
14	2.22	2.64	2.21	2.47	2.67	3.39	3.27	3.76	3.37	3.97	3.46	3.69	2.76	2.69	2.69	2.95	3.09	2.61	3.22	2.68	2.52	2.93	2.67	2.74	2.78	2.59
15	-	-	-	-	-	-	-	-	-	-	-	3.60	2.22	2.38	2.51	2.55	2.37	2.65	2.43	2.69	2.53	2.40	2.30	2.24	2.22	2.36
16	-	-	-	-	-	-	-	-	-	-	-	2.58	1.50	1.83	2.06	1.86	2.40	2.22	2.12	1.98	1.85	1.96	1.84	1.87	2.00	1.89
17	-	-	-	-	-	-	-	-	-	-	-	2.81	1.23	1.42	1.74	1.69	1.81	1.89	1.85	1.72	1.69	1.57	1.51	1.69	1.57	1.71

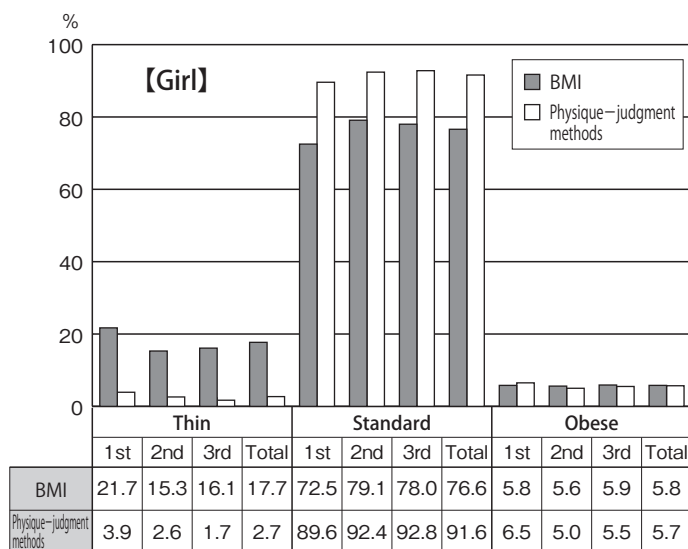
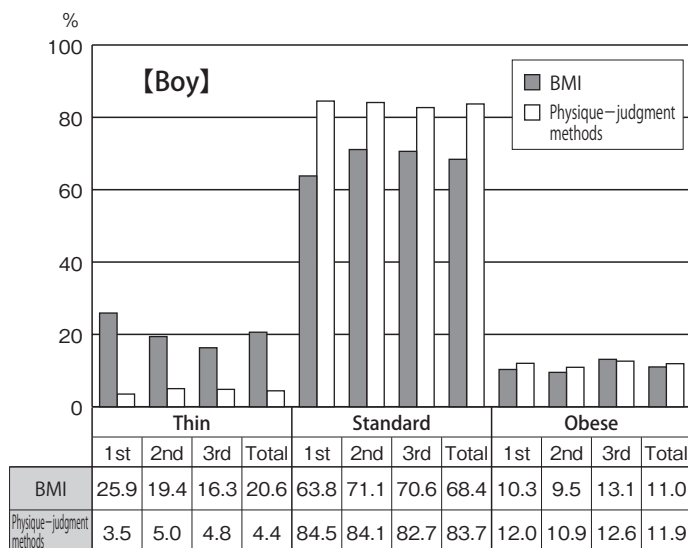


▲7-4 : Trends in the prevalence of thinness in children aged 6, 11, and 14 years

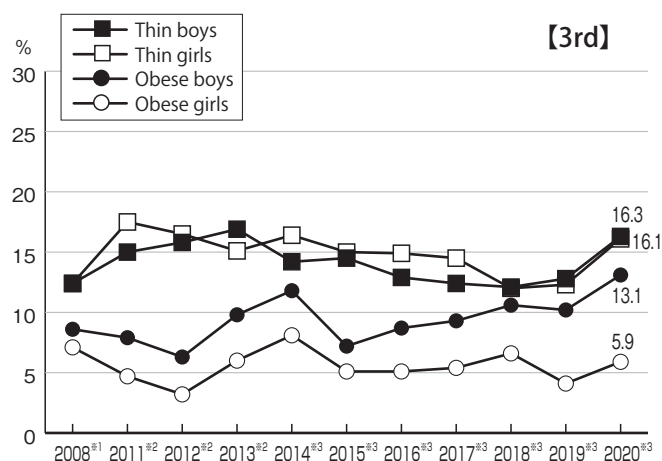
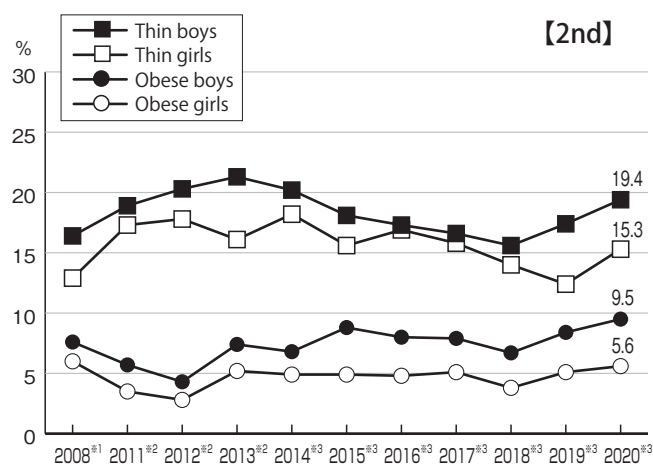
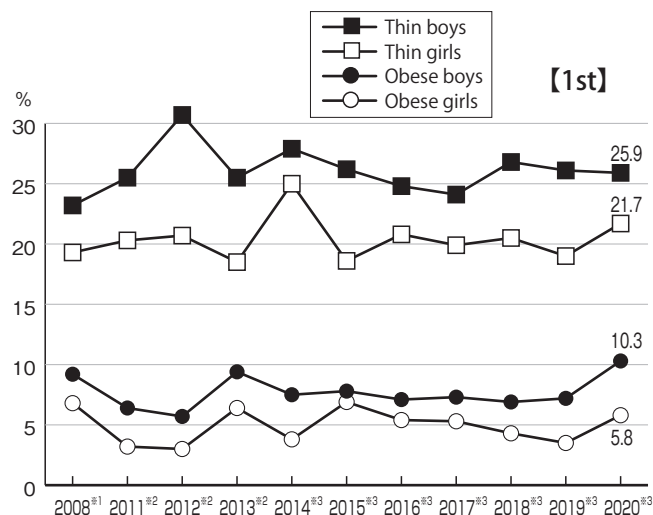
(7-3, 7-4 : from the "Annual Report of School Health Statistics Research" by the Ministry of Education, Culture, Sports, Science, and Technology)

The incidence of thinness in children was increasing up to 2006. Since the method of calculating thinness in children changed in 2006, its prevalence has remained flat, except among 14 year-old boys.

Note: Note: For the period between 1977 and 2005, children who were considered "thin" were those whose weight was 80% or less of the average weight based on a calculation involving sex, age, and height.
From 2006 onward, the obesity level has been calculated using the standard weight by sex, age, and height in the following formula, with those whose obesity level is 20% less than the average and under classified as "thin":
Obesity level = (actual weight - standard weight by height) / standard weight by height × 100 (%)



▲7-5 : Differences in the percentage of high school students who were “thin,” “standard-weight,” and “obese” according to by physique-judgment standards (BMI and obesity index in Japan)

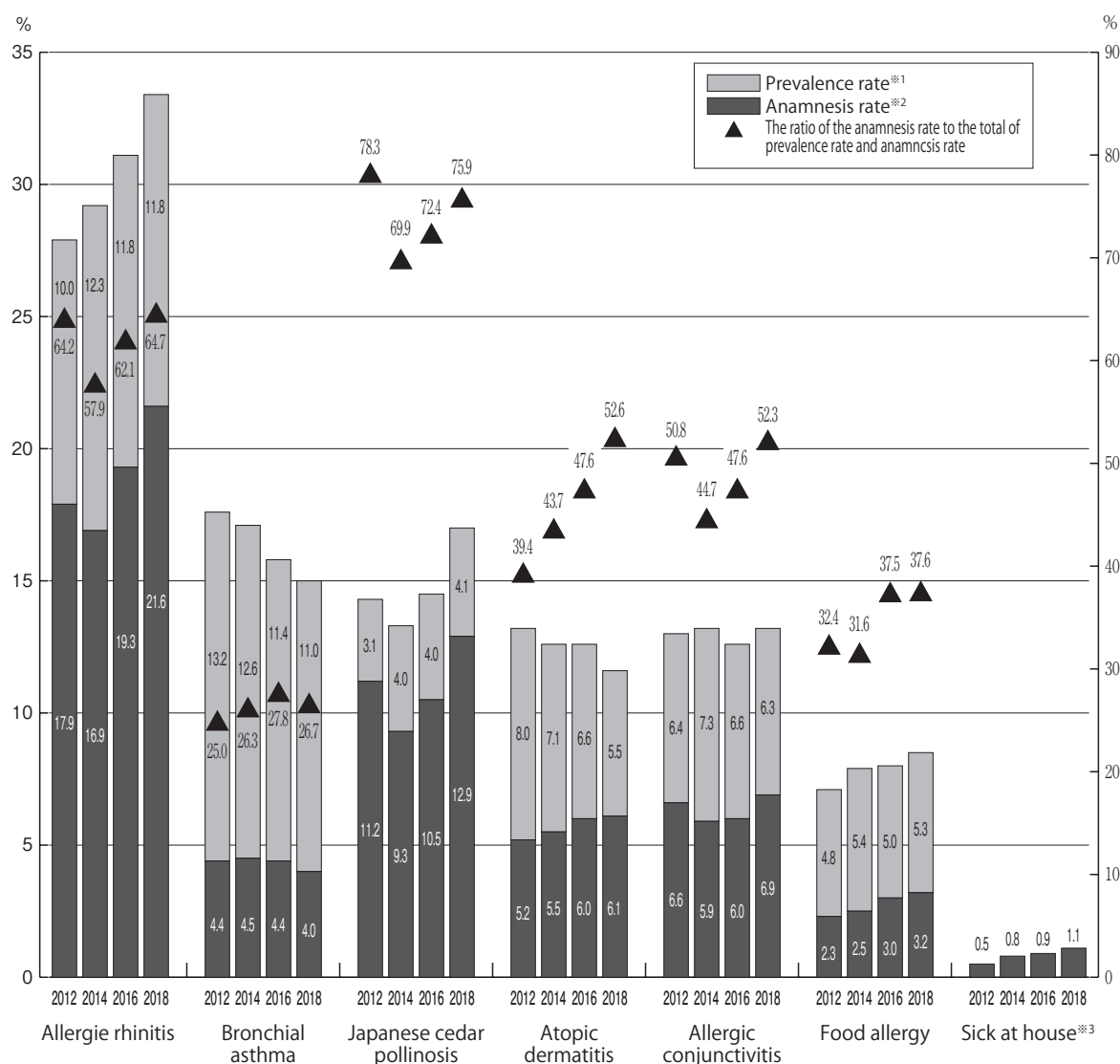


▲7-6 : Percentage of “thin” and “obese” children based on BMI

※1 Nishiyama at Kyoto
 ※2 Tanpopo at Chiba
 ※3 The National Network of Physical and Mental Health in Japanese Children

On this page, we compared the results of applying physique-judgment methods to high school students using the BMI method, which is widely used internationally, and the obesity method, which is used in Japan. Although there was not a large difference in the results regarding “obesity,” a significant difference between boys and girls was confirmed, especially among 1st graders. In Japan, the obesity method is often used up to high school, and the BMI method is often used for adults; therefore, although some high school students were judged to be “standard-weight,” some of these students were actually “thin.” Therefore, it can be inferred that caution is required when determining the physique of high school students.

8 Allergies



▲8-1 : Prevalence and anamnesis rate of allergen-induced diseases

▼8-2 : Support rate of schools in relation to allergen-induced diseases (%)

	Support rate of school			
	2012	2014	2016	2018
Food allergy	97.6	100.0	94.2	80.4
Bronchial asthma	11.0	14.8	12.0	12.3
Sick at house	9.3	16.2	10.6	9.1
Allergic conjunctivitis	4.1	6.2	5.6	4.7
Atopic dermatitis	4.8	7.5	5.0	4.4
Japanese cedar pollinosis	3.6	5.5	4.0	3.6
Allergic rhinitis	3.3	4.6	3.5	3.2

※1: Prevalence rate: Diagnosed by a doctor in the past but currently cured.
 ※2: Anamnesis rate: Diagnosed by a doctor and being treated.
 ※3: "Sick at house" shows only the prevalence rate.

(8-1, 8-2 : from the enterprise report on health status surveillance among children by the Japan Society of School Health)

In 2018, the prevalence rate ratio (▲) of the prevalence and anamnesis rates was higher in relation to (in descending order) Japanese cedar pollinosis, allergic rhinitis, atopic dermatitis, and allergic conjunctivitis. These are diseases with a low remission rate. In addition, the correspondence rate for food allergies was extremely high compared to other causes, although it is a natural value because most Japanese elementary and junior high schools provide lunches to students.

9 Long-term absenteeism

People (Per 1,000 people)

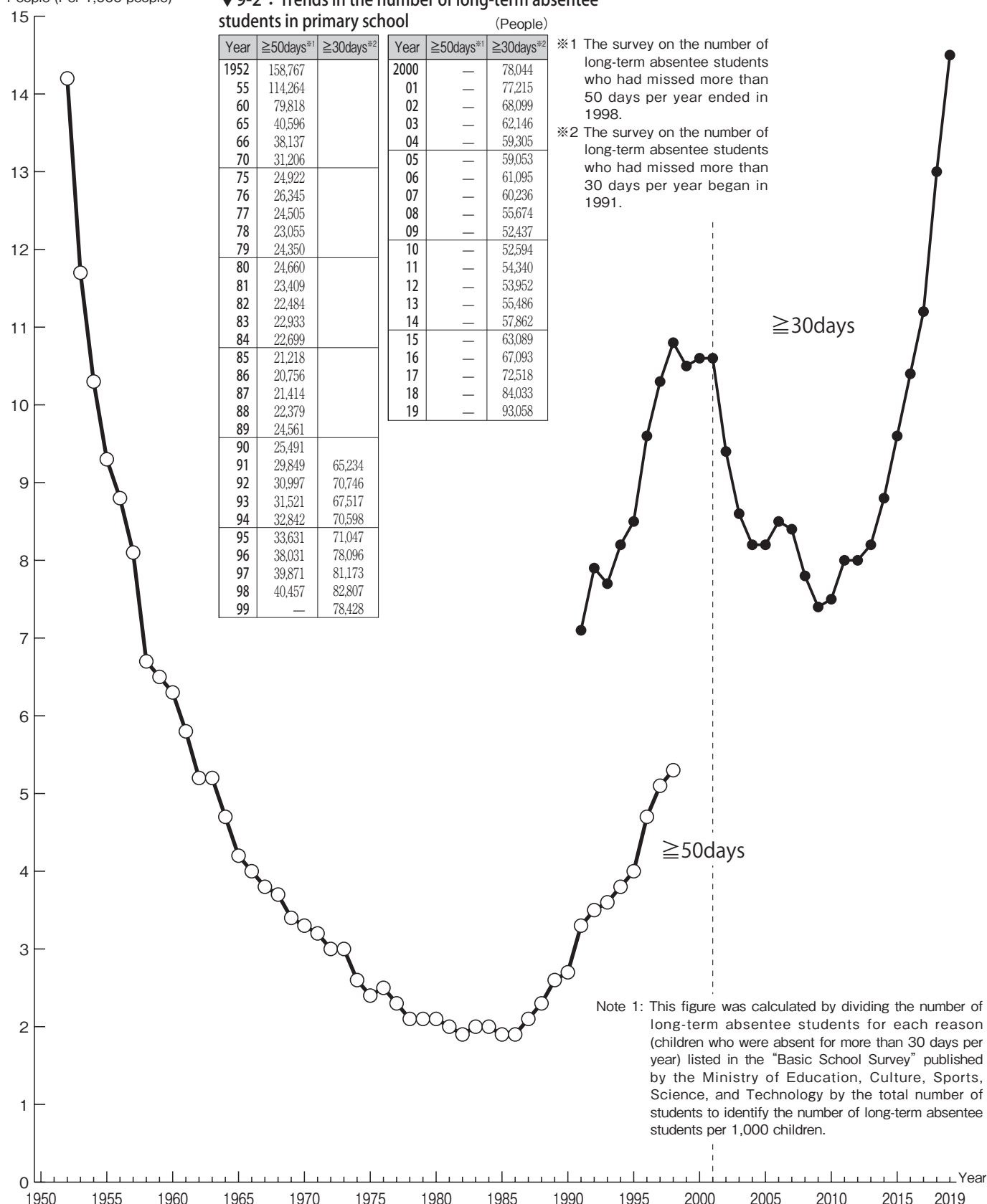
▼9-2 : Trends in the number of long-term absentee students in primary school

(People)

Year	≥50days ^{※1}	≥30days ^{※2}	Year	≥50days ^{※1}	≥30days ^{※2}
1952	158,767		2000	—	78,044
55	114,264		01	—	77,215
60	79,818		02	—	68,099
65	40,596		03	—	62,146
66	38,137		04	—	59,305
70	31,206		05	—	59,053
75	24,922		06	—	61,095
76	26,345		07	—	60,236
77	24,505		08	—	55,674
78	23,055		09	—	52,437
79	24,350		10	—	52,594
80	24,660		11	—	54,340
81	23,409		12	—	53,952
82	22,484		13	—	55,486
83	22,933		14	—	57,862
84	22,699		15	—	63,089
85	21,218		16	—	67,093
86	20,756		17	—	72,518
87	21,414		18	—	84,033
88	22,379		19	—	93,058
89	24,561				
90	25,491				
91	29,849	65,234			
92	30,997	70,746			
93	31,521	67,517			
94	32,842	70,598			
95	33,631	71,047			
96	38,031	78,096			
97	39,871	81,173			
98	40,457	82,807			
99	—	78,428			

※1 The survey on the number of long-term absentee students who had missed more than 50 days per year ended in 1998.

※2 The survey on the number of long-term absentee students who had missed more than 30 days per year began in 1991.

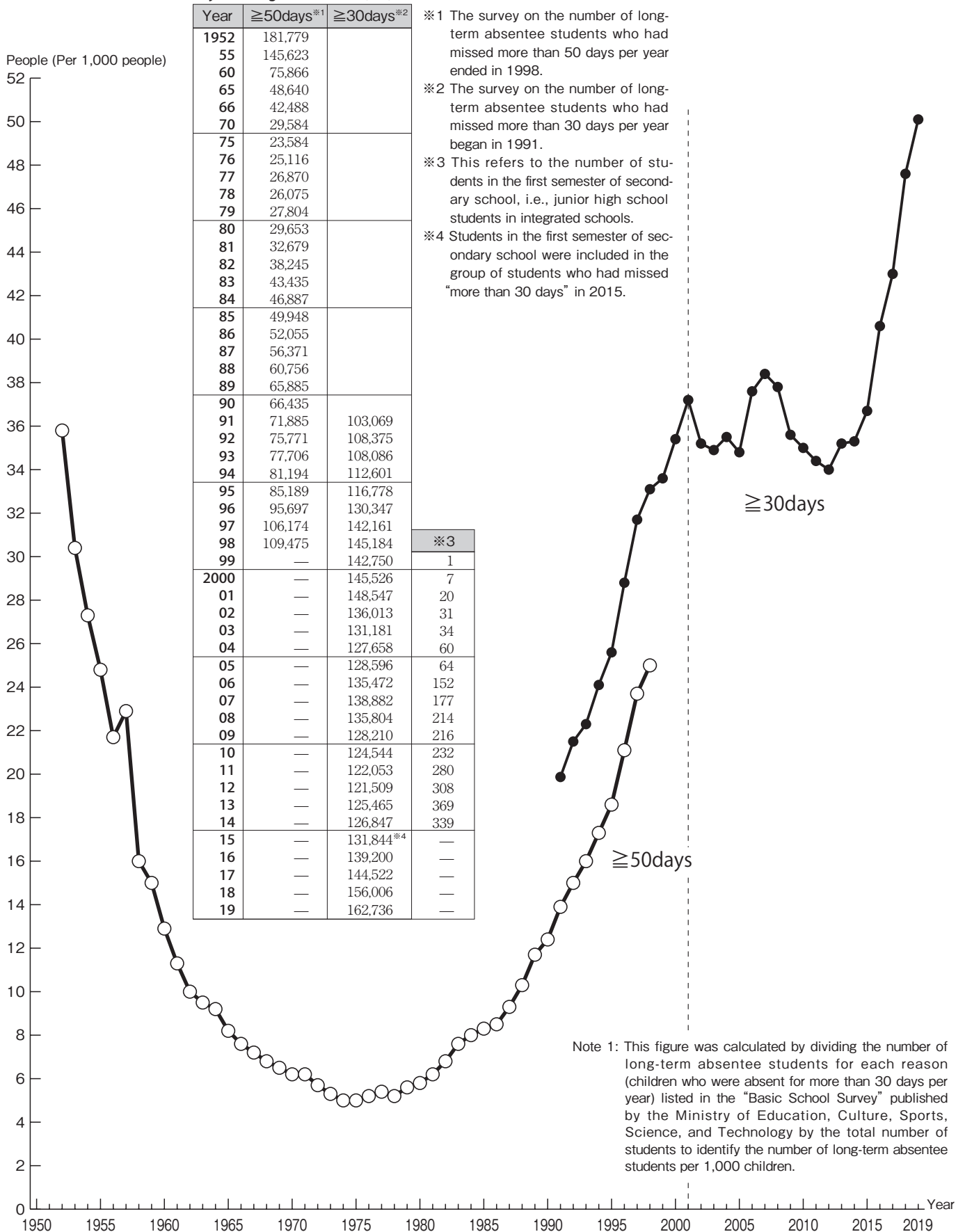


▲9-1 : Trends in the percentage of long-term absentee students in primary school

(9-1, 9-2 : from the survey on problems in student guidance, such as problem behaviors and absenteeism among children, by the Ministry of Education, Culture, Sports, Science, and Technology. The 2019 record consists of the preliminary results.)

The number of elementary school students nationwide in 2019 decreased by 68,000 from the previous year to a record low. In contrast, the number of long-term absentee students increased by 9,025, reaching a record high. It was calculated that there was one absentee student per two or three classes. The fact that the number of long-term absentee students is continuing to increase, even though the number of children who are being treated as having "attended" school by receiving consultations and guidance at institutions outside the school or engaging in online learning at home is increasing, is evidence of the seriousness of this problem in Japan.

▼9-4 : Trends in the number of long-term absentee students
in junior high school (people)



▲9-3 : Trends in the percentage of long-term absentee students in junior high school

(9-3, 9-4 : from the survey on problems in student guidance, such as problem behaviors and absenteeism among children, by the Ministry of Education, Culture, Sports, Science, and Technology. The 2019 record consists of the preliminary results.)

As in elementary school, the number of children enrolled in junior high school in 2019 decreased from the previous year, but the number of long-term absentee students increased by 6,730, which was a record high. It was calculated that there were two absentee students in one class. As with the elementary school situation, the data indicate that absenteeism is a serious problem in Japanese society.

▼9-6 : Trends in the prevalence of various reasons for long-term absenteeism in primary school students (%)

Year	1952	55	66	70	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	1990	
≥50 ^{ast} days	Illness	41.5	49.0	71.0	75.6	76.2	76.2	74.4	72.9	72.9	71.8	70.6	68.8	67.5	68.1	65.7	63.8	60.4	56.5	55.0	50.7
	School refusal	14.3	12.0	11.6	11.6	11.3	11.2	12.1	13.9	14.1	14.9	15.5	16.1	16.7	17.5	19.2	21.2	24.7	28.1	29.2	31.4

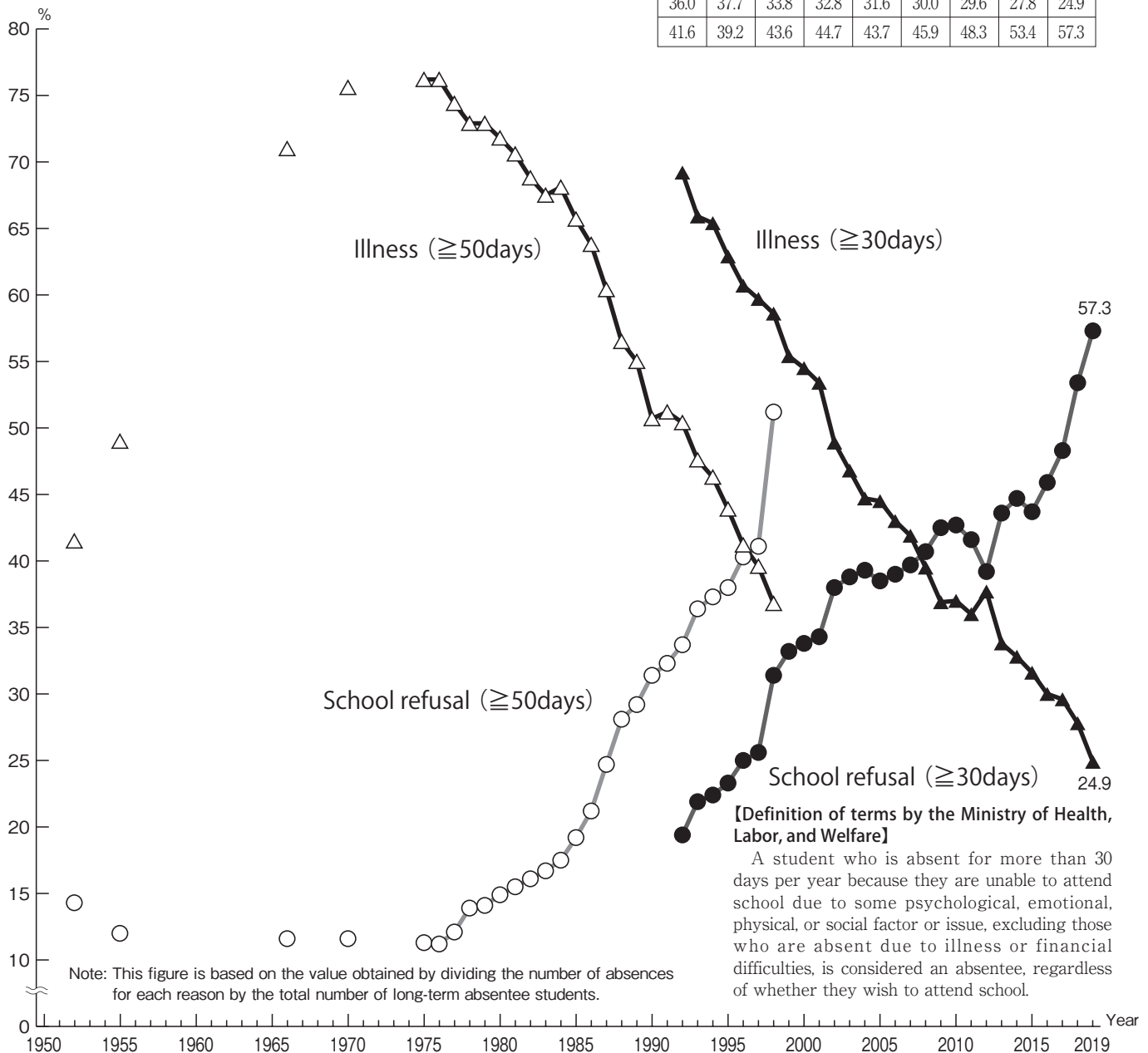
Year	91	92	93	94	95	96	97	98	99	2000	01	02	03	04	05	06	07	08	09	10
≥50 days	Illness	51.2	50.4	47.6	46.3	43.9	41.2	39.6	36.8	—	—	—	—	—	—	—	—	—	—	—
	School refusal	32.3	33.7	36.4	37.3	38.0	40.3	41.1	51.2	—	—	—	—	—	—	—	—	—	—	—

≥30 days	Illness	69.2	65.9	65.4	62.9	60.7	59.7	58.6	55.4	54.5	53.4	48.9	46.8	44.7	44.5	43.0	41.9			
	School refusal	19.4	21.9	22.4	23.3	25.0	25.6	31.4	33.2	33.8	34.3	38.0	38.8	39.3	38.5	39.0	39.7			

※1 The survey on the number of long-term absentee students who had missed more than 50 days per year ended in 1998.

※2 The survey on the number of long-term absentee students who had missed more than 30 days per year began in 1991.

	11	12	13	14	15	16	17	18	19
Illness (≥50days)	—	—	—	—	—	—	—	—	—
School refusal (≥50days)	—	—	—	—	—	—	—	—	—
Illness (≥30days)	36.0	37.7	33.8	32.8	31.6	30.0	29.6	27.8	24.9
School refusal (≥30days)	41.6	39.2	43.6	44.7	43.7	45.9	48.3	53.4	57.3



▲9-5 : Trends in the prevalence of various reasons for long-term absenteeism in primary school students

(9-5, 9-6 : from the survey on problems in student guidance, such as problem behaviors and absenteeism among children, by the Ministry of Education, Culture, Sports, Science, and Technology. The 2019 record consists of the preliminary results.)

While the proportion of long-term absenteeism due to “illness” continues to decline, the proportion due to “school refusal” for reasons other than illness or financial difficulties continues to increase. The most common cause of “school refusal” in 2019 was “personal situation: lethargy, anxiety,” at 41.1%, followed by “family-related situation: involvement of parents and children,” 16.7%; “personal situation: disturbance of daily routine, play, delinquency,” at 10.3%; and “school-related situation: problems related to peer relationships excluding bullying,” at 10.2%.

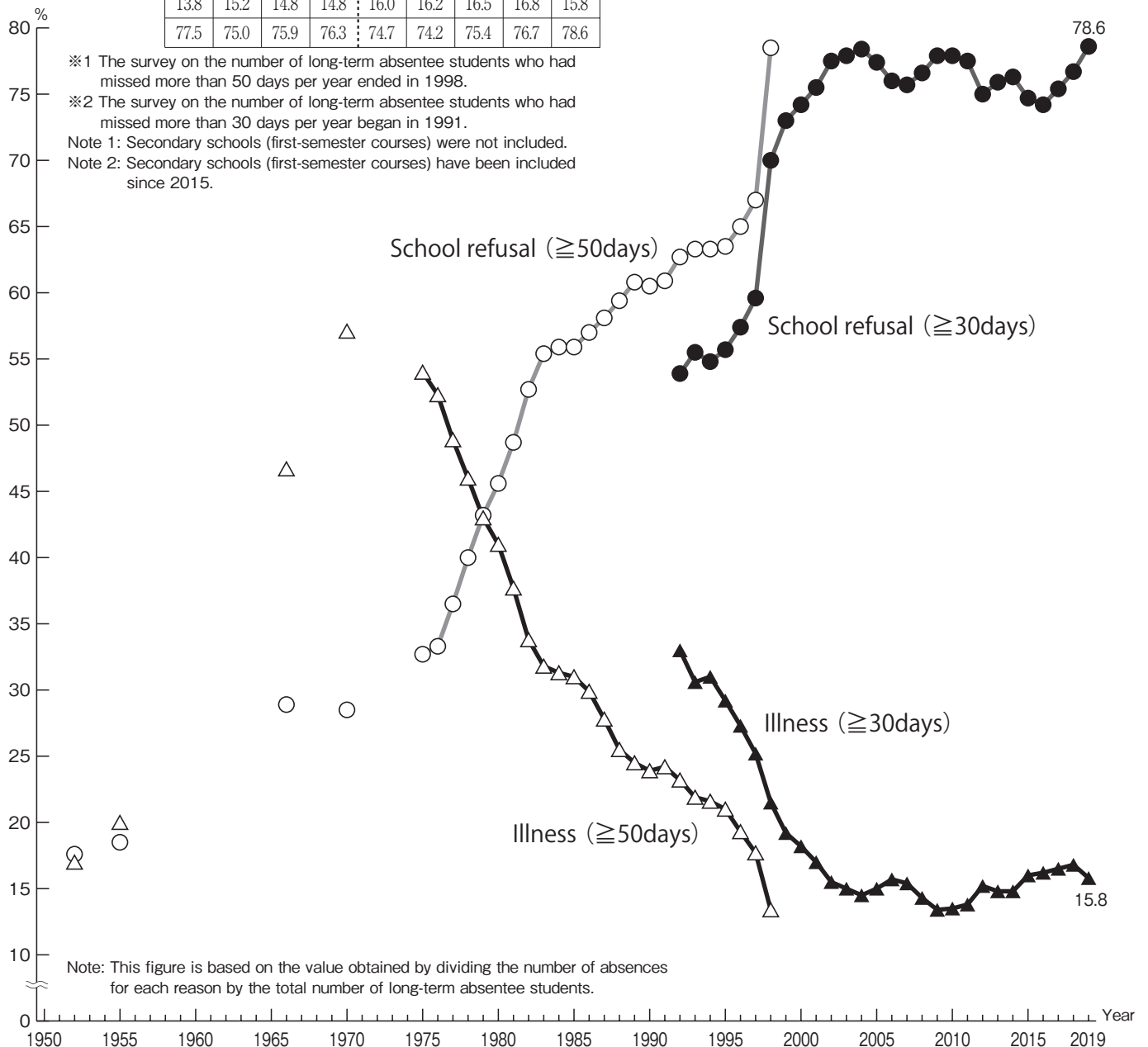
▼9-8 : Trends in the prevalence of various reasons for long-term absenteeism among junior high school students (%)

Year	1952	55	66	70	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	1990	
≥50 ^{ast} days	Illness	17.0	20.0	46.7	57.1	54.0	52.3	48.9	46.0	43.0	41.0	37.7	33.8	31.8	31.3	31.0	29.9	27.8	25.5	24.5	23.9
	School refusal	17.6	18.5	28.9	28.5	32.7	33.3	36.5	40.0	43.2	45.6	48.7	52.7	55.4	55.9	57.0	58.1	59.4	60.8	60.5	

Year	91	92	93	94	95	96	97	98	99	2000	01	02	03	04	05	06	07	08	09	10
≥50 days	Illness	24.2	23.2	21.9	21.6	21.0	19.3	17.7	13.4	—	—	—	—	—	—	—	—	—	—	—
	School refusal	60.9	62.7	63.3	63.3	63.5	63.5	67.0	78.5	—	—	—	—	—	—	—	—	—	—	—

≥30 days	Illness	33.0	30.6	31.0	29.2	27.3	25.2	21.5	19.2	18.2	17.0	15.5	15.0	14.5	15.0	15.7	15.4	14.3	13.4	13.5
	School refusal	53.9	55.5	54.8	55.7	57.4	59.6	70.0	73.0	74.2	75.5	77.5	77.9	78.4	77.4	76.0	75.7	76.6	77.9	78.0

11	12	13	14	15	16	17	18	19
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
13.8	15.2	14.8	14.8	16.0	16.2	16.5	16.8	15.8
77.5	75.0	75.9	76.3	74.7	74.2	75.4	76.7	78.6



▲9-7 : Trends in the prevalence of various reasons for long-term absenteeism among junior high school students

(9-7, 9-8 : from the survey on problems in student guidance, such as problem behaviors and absenteeism among children, by the Ministry of Education, Culture, Sports, Science, and Technology. The 2019 record consists of the preliminary results.)

As in elementary school, the amount of lengthy absenteeism due to “school refusal” is increasing in junior high school, and the gap between it and the proportion of lengthy absenteeism due to “illness” is widening. The most common cause of “school refusal” in 2019 was “personal situation: lethargy, anxiety” at 39.5%, followed by “school-related situation: problems related to peer relationships excluding bullying,” at 17.2%; “personal situation: disturbance of daily routine, play, delinquency,” at 8.6%; and “school-related situation: poor academic performance,” at 8.5%.

10 Bullying

▼10-1 : Trends in the number of bullying incidents by school category

(The number of bullying incidents)

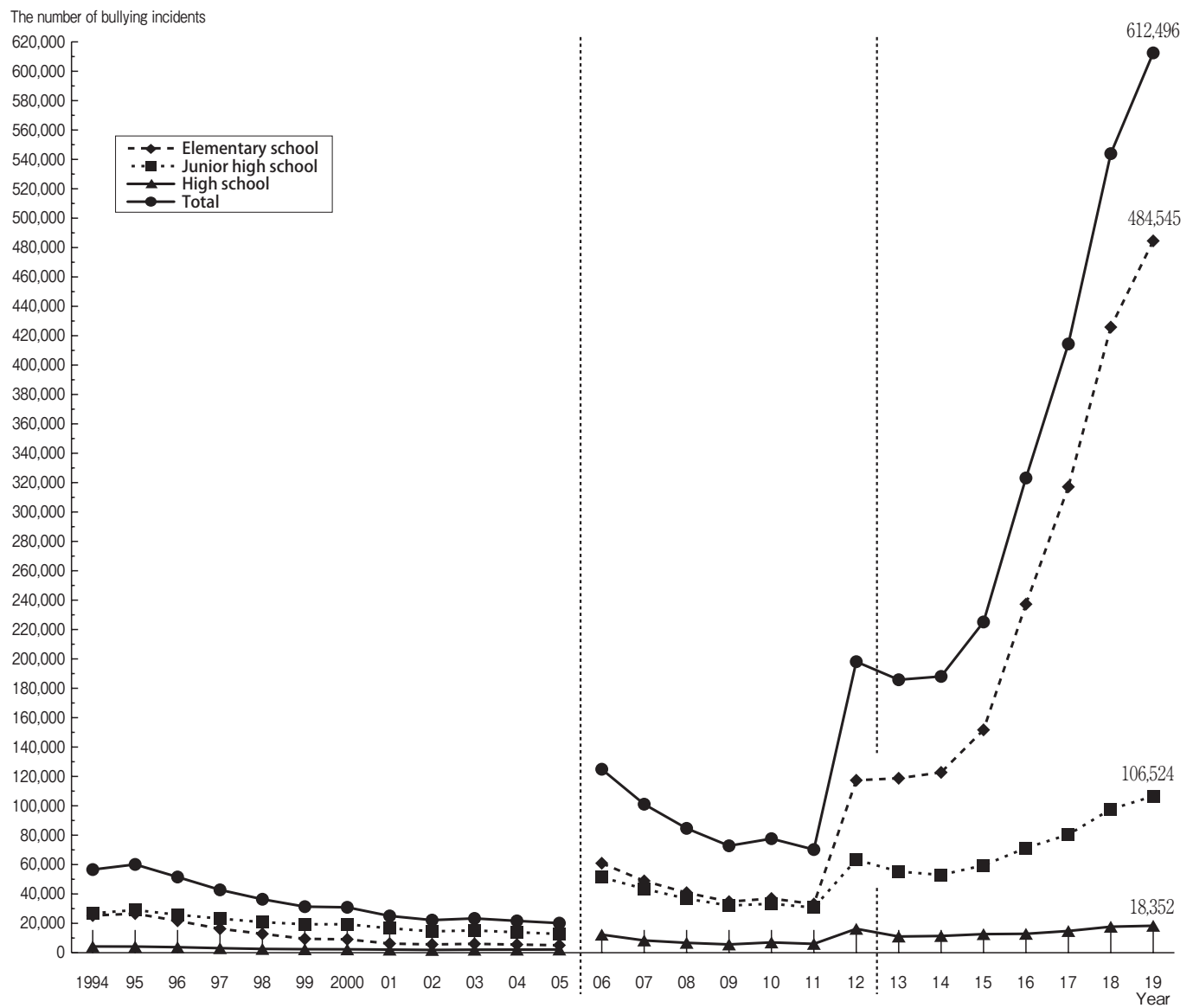
Year	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Elementary school	26,614	9,114	5,087	60,897	48,896	40,807	34,766	36,909	33,124	117,384	118,748	122,734	151,692	237,256	317,121	425,844	484,545
Junior high school	29,069	19,371	12,794	51,310	43,505	36,795	32,111	33,323	30,749	63,634	55,248	52,971	59,502	71,309	80,424	97,704	106,524
High school	4,184	2,327	2,191	12,307	8,355	6,737	5,642	7,018	6,020	16,274	11,039	11,404	12,664	12,874	14,789	17,709	18,352
Special support school	229	106	71	384	341	309	259	380	338	817	768	963	1,274	1,704	2,044	2,676	3,075
Total	60,096	30,918	20,143	124,898	101,097	84,648	72,778	77,630	70,231	198,109	185,803	188,072	225,132	323,143	414,378	543,933	612,496

Note 1: The methods used in this survey were changed in 1994 and 2006.

Note 2: This corresponds to the number of incidents up to 2005 and recognized cases since 2006.

Note 3: Correspondence courses have been included in high school data since 2013.

Note 4: Elementary schools include compulsory education; junior high schools include the latter half of compulsory education and the first half of secondary education; and senior high schools include the latter half of secondary education only.

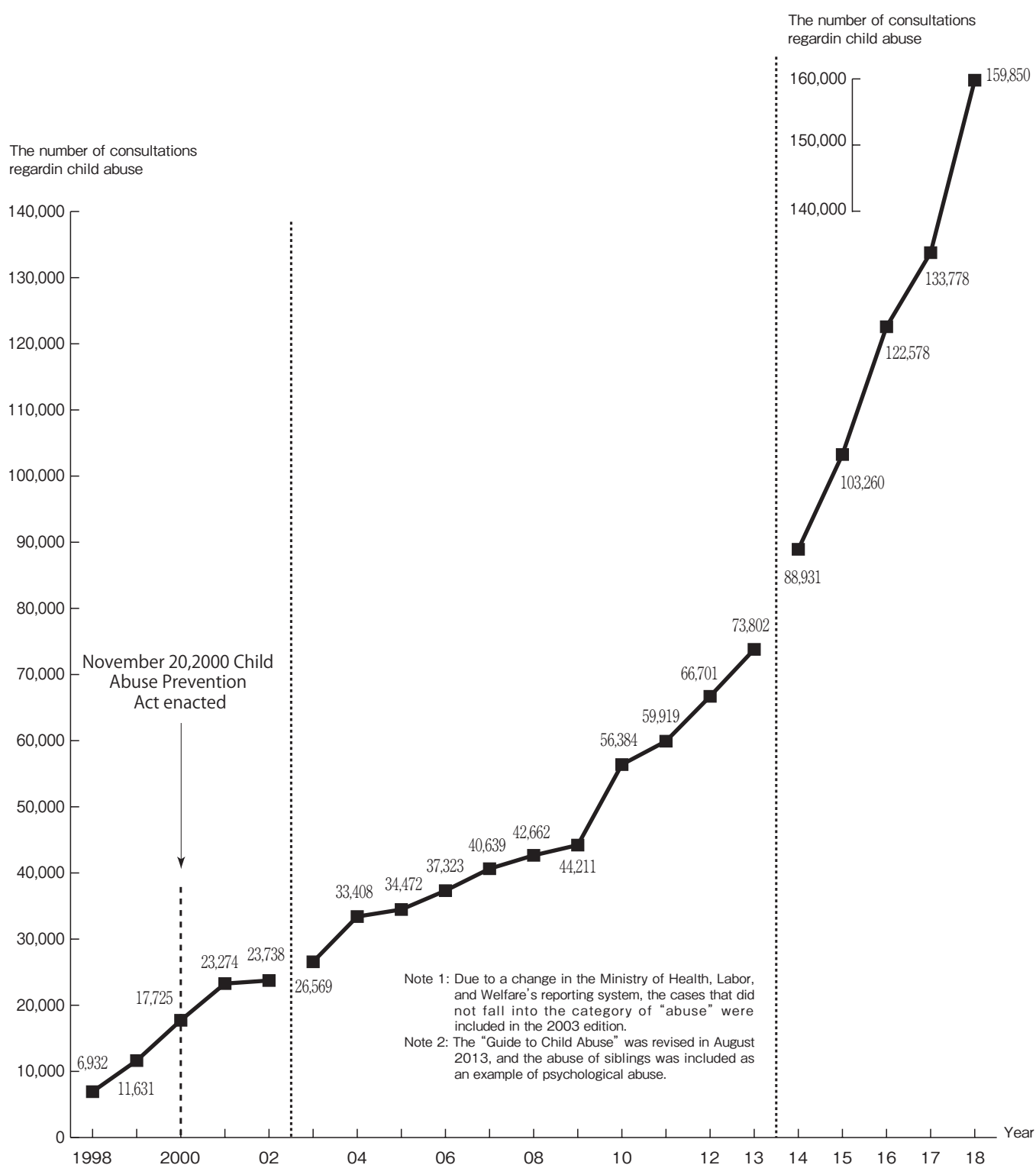


▲10-2 : Trends in the number of bullying incidents by school category

(10-1~10-2 : from the survey on problems in student guidance, such as problem behaviors and absenteeism among children, by the Ministry of Education, Culture, Sports, Science, and Technology)

The number of reported cases of bullying continues to increase. One of the reasons for the increase is that the “Bullying Prevention Measures Promotion Law” enacted in 2013 changed how bullying was defined in schools.

11 Child abuse



▲11-1 : Trends in the number of consultations regarding child abuse in child consultation centers
(from the survey on problems in student guidance, such as problem behaviors and absenteeism among children,
by the Ministry of Education, Culture, Sports, Science, and Technology)

The number of child abuse consultations has also been consistently increasing. An increase in psychological abuse is thought to be behind this trend, as are an increase in reports from the police and enhancements to the consultation system. In addition, it is believed that the overall awareness of society has increased regarding the issue because of deaths from abuse being widely reported in the media.

12 Violent acts

▼12-1 : Trends in the number of violent acts in schools by school category

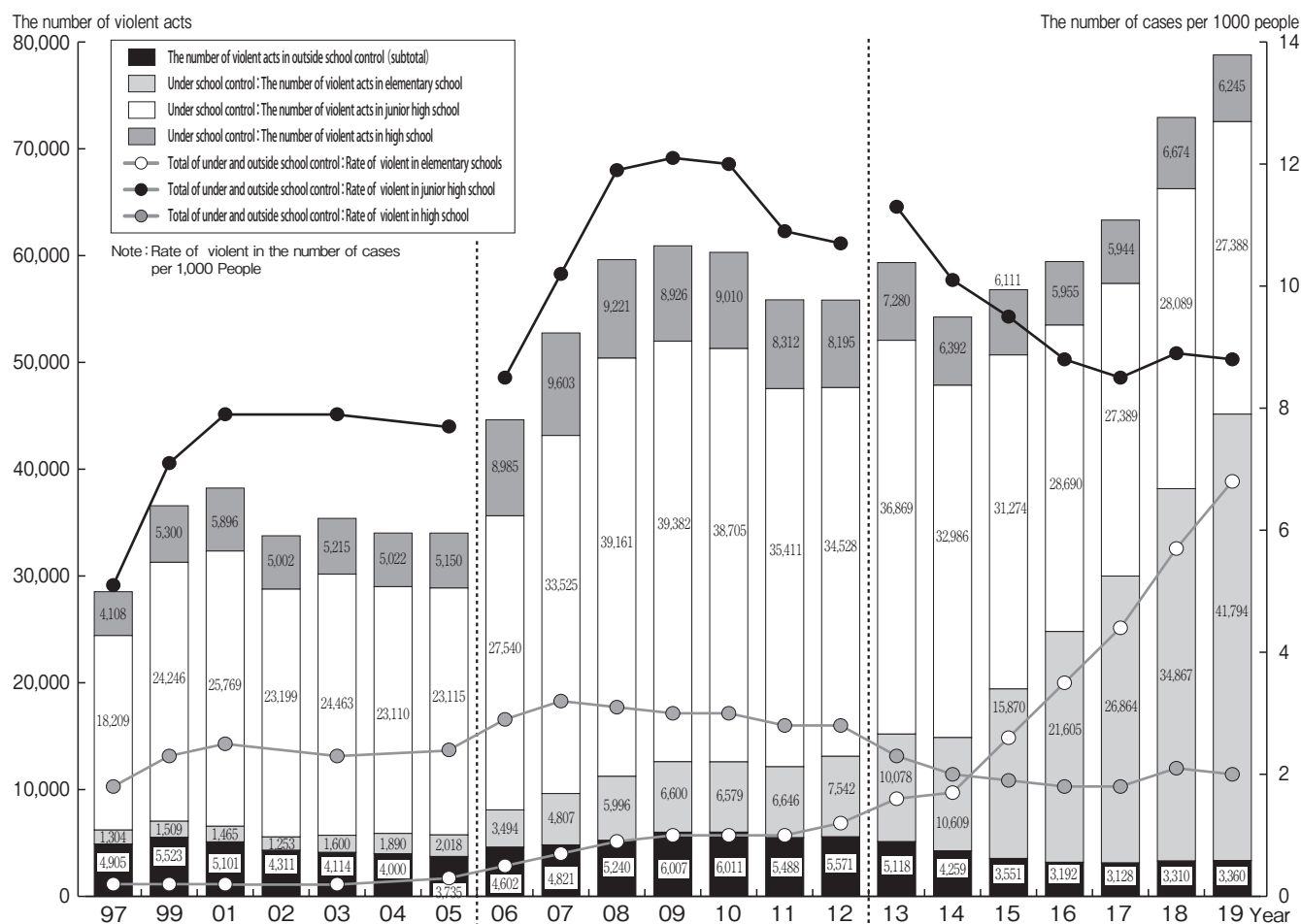
	Year	1997	1999	2001	2003	2005	2007	2009	2011	2013	2014	2015	2016	2017	2018	2019
Under school control	Elementary school	1,304	1,509	1,465	1,600	2,018	4,807	6,600	6,646	10,078	10,609	15,870	21,605	26,864	34,867	41,794
	Junior high school	18,209	24,246	25,769	24,463	23,115	33,525	39,382	35,411	36,869	32,986	31,274	28,690	27,389	28,089	27,388
	High school	4,108	5,300	5,896	5,215	5,150	9,603	8,926	8,312	7,280	6,392	6,111	5,955	5,944	6,674	6,245
	Subtotal	23,621	31,055	33,130	31,278	30,283	47,935	54,908	50,369	54,227	49,987	53,255	56,250	60,197	69,630	75,427
Outside school control	Elementary school	128	159	165	177	158	407	515	529	818	863	1,208	1,236	1,451	1,669	1,820
	Junior high school	3,376	3,831	3,619	2,951	2,681	3,278	4,333	3,840	3,377	2,697	1,799	1,458	1,313	1,232	1,130
	High school	1,401	1,533	1,317	986	896	1,136	1,159	1,119	923	699	544	500	364	410	410
	Subtotal	4,905	5,523	5,101	4,114	3,735	4,821	6,007	5,488	5,118	4,259	3,551	3,192	3,128	3,310	3,360
Total of under and outside school control		28,526	36,578	38,231	35,392	34,018	52,756	60,915	55,857	59,345	54,246	56,806	59,444	63,325	72,940	78,787
Rate of violence	Elementary school	0.2	0.2	0.2	0.2	0.3	0.7	1.0	1.0	1.6	1.7	2.6	3.5	4.4	5.7	6.8
	Junior high school	5.1	7.1	7.9	7.9	7.7	10.2	12.1	10.9	11.3	10.1	9.5	8.8	8.5	8.9	8.8
	High school	1.8	2.3	2.5	2.3	2.4	3.2	3.0	2.8	2.3	2.0	1.9	1.8	1.8	2.1	2.0
	Total	1.9	2.6	2.5	2.7	2.6	3.7	4.3	4.0	4.3	4.0	4.2	4.4	4.8	5.5	6.1

Note 1: Public and private schools have been included in the survey since 2006.

Note 2: Correspondence courses have been included in high school data since 2013.

Note 3: "In-school" was renamed "under school control," and "out-of-school" was renamed "outside school control" in 2015.

Note 4: Elementary schools include compulsory education; junior high schools include the latter half of compulsory education and the first half of secondary education; and senior high schools include the latter half of secondary education only.



▲12-2 : Trends in the number of violent acts in schools by school category

(12-1, 12-2 : from the survey on problems in student guidance, such as problem behaviors and absenteeism among children, by the Ministry of Education, Culture, Sports, Science, and Technology)

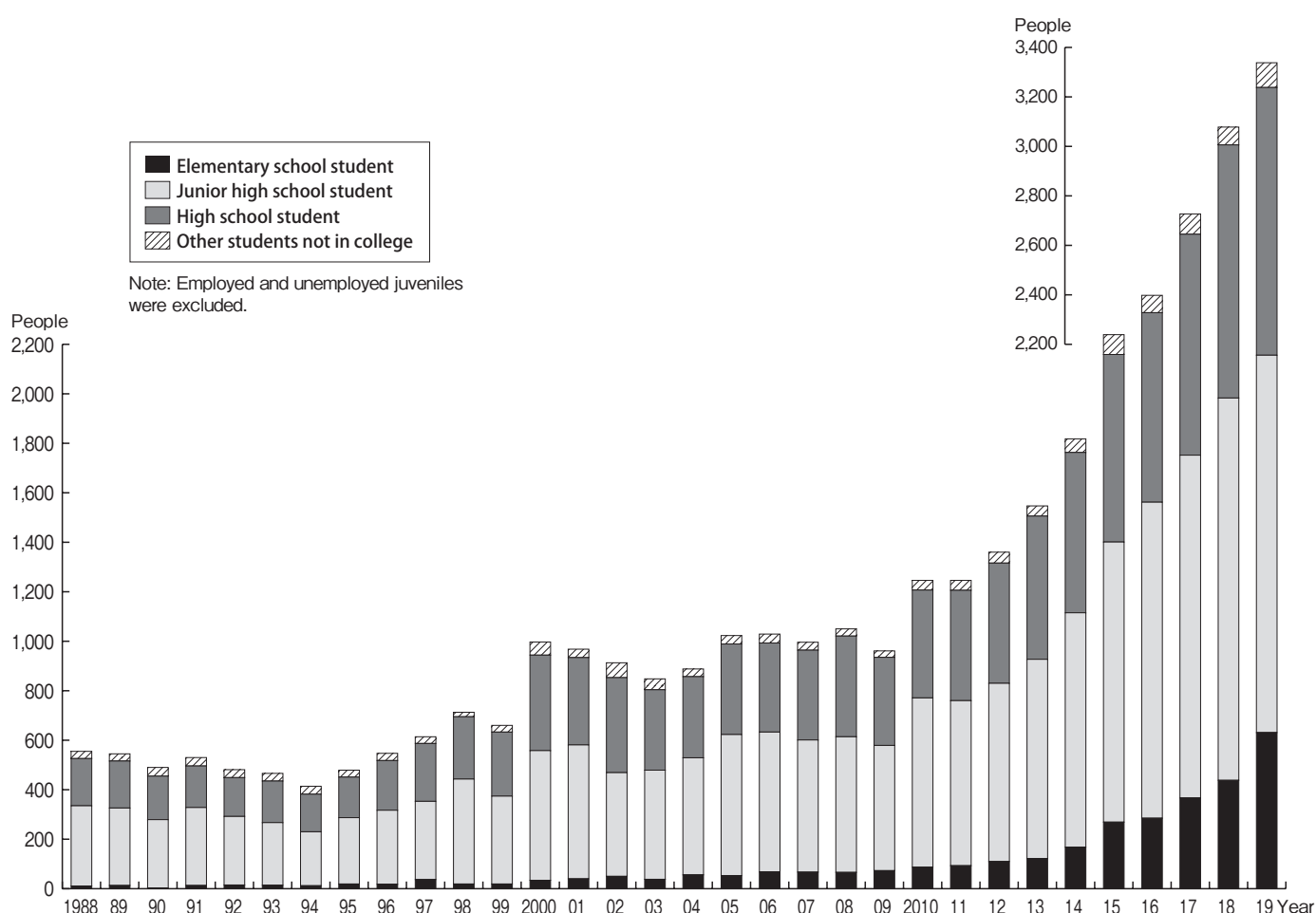
The number of violent acts and rate of violence in elementary schools continue to increase. It can generally be said that the perpetrators of violent acts often respond affirmatively to statements like the following: "I cannot control my feelings," "I don't understand other people's feelings," and "I don't express my feelings." The relationship between violence and the increase in developmental disorders is unclear, but it should be examined. On the other hand, it was recommended that Japan "prioritize the eradication of all forms of violence against children" (para. 24) and "regularly conduct special training courses on this Convention and the Elective Protocol" (para. 13-b) in the concluding observations in the combined fourth and fifth periodic reports of Japan by the United Nations Committee on the Rights of the Child. The educational environment must be improved in this respect.

▼12-3 : Trends in the number of cases of domestic violence involving children by school category

(People)

Year	1988	89	90	91	92	93	94	95	96	97	98	99	2000	01	02	03	04	05	06	07	08	09
Elementary school student	11	13	3	13	15	14	12	19	18	37	19	19	34	40	50	38	56	53	68	67	66	73
Junior high school student	324	313	276	315	277	253	218	268	299	316	424	355	524	541	419	441	473	570	565	534	548	506
High school student	191	190	176	168	157	168	152	164	201	234	252	259	386	353	384	325	328	366	360	363	407	356
Others	29	29	35	34	32	31	32	28	29	27	18	27	53	34	60	44	31	34	36	32	29	26
Total	555	545	490	530	481	466	414	479	547	614	713	660	997	968	913	848	888	1,023	1,029	996	1,050	961

2010	11	12	13	14	15	16	17	18	19
87	93	110	122	168	269	285	367	438	631
684	667	720	805	947	1,132	1,277	1,385	1,545	1,525
436	446	486	579	648	758	766	893	1,023	1,082
39	40	44	41	55	80	70	82	72	100
1,246	1,246	1,360	1,547	1,818	2,239	2,398	2,727	3,078	3,338



▲12-4 : Trends in the number of cases of domestic violence involving children by school category

(12-3, 12-4 : from the "Overview of Juvenile Guidance and Protection" in the first year of Reiwa by the National Police Agency)

The number of cases of domestic violence registered with the National Police Agency increased in 2019, reaching a record high. Above all, the increase in such incidents involving elementary school students is remarkable. Situations in which domestic violence is reported have some common elements, including "children who are serious and lack the ability to assert themselves," a "lifestyle that is concerning," the presence of "one parent who is over-protective and one parent who is indifferent," and "inadequate parent-child separation." Therefore, it would be desirable to promote work styles that would allow parents to raise their children with minimal stress and create a system that would allow parents to feel free to consult with others regarding parenting issues.

13 Drug abuse

▼13-1 : Trends in the number of children punished for crimes related to drugs between the ages of 14 and 20

(People)

Year	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Stimulants Act	1,137	745	388	289	249	228	183	148	124	92	119	136	91	96	97
Cannabis Act	102	190	221	187	227	164	81	66	59	80	144	210	297	429	609
Narcotic and Psychotropics Control Act	7	18	80	36	31	33	19	7	8	6	11	14	13	24	37
Poisonous and Deleterious Substances Act	4,298	3,267	2,581	981	565	264	112	99	36	15	11	13	11	7	3
Number of thinner sin it	3,417	2,751	2,205	841	476	221	100	74	32	14	7	13	9	7	1

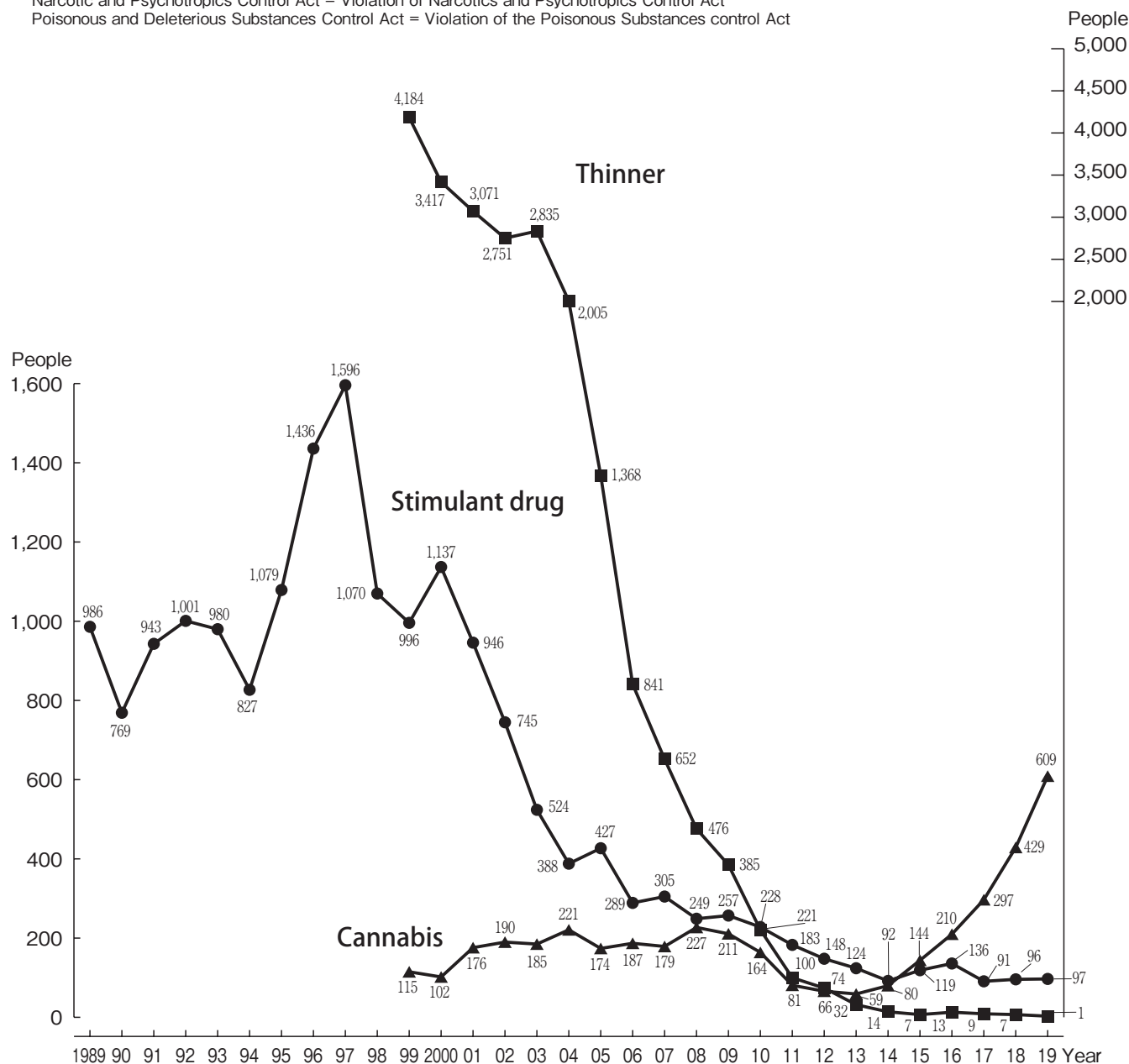
Note: Juvenile offender = Refers to those between the ages of 14 and 20.

Note: Stimulants Act = Violation of the Stimulants Control Act

Cannabis Act = Violation of the Cannabis Control Act

Narcotic and Psychotropics Control Act = Violation of Narcotics and Psychotropics Control Act

Poisonous and Deleterious Substances Control Act = Violation of the Poisonous Substances control Act

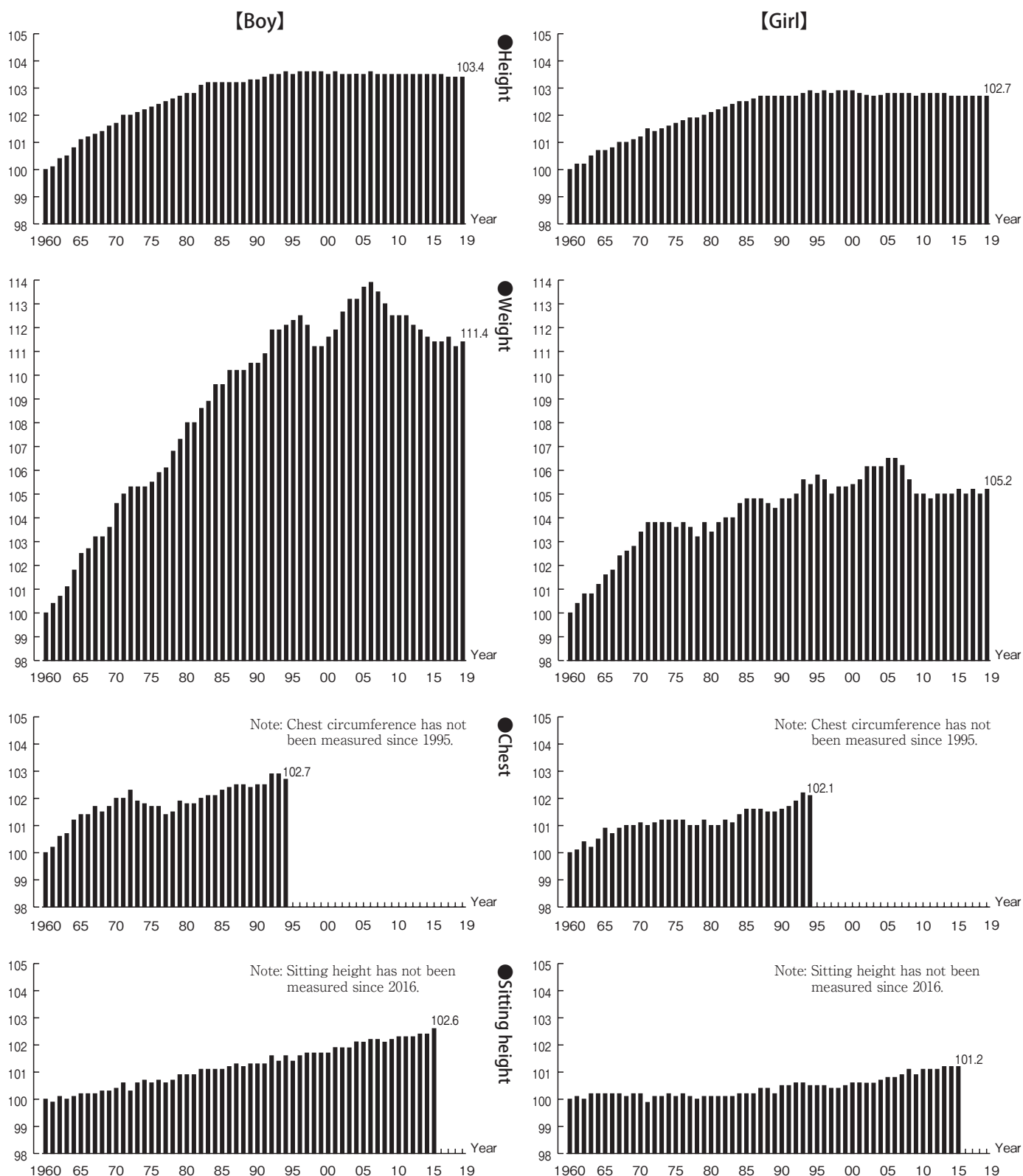


▲13-2 : Trends in the number of children punished for crimes related to drugs between the ages of 14 and 20

(13-1, 13-2 : from the "Overview of Juvenile Guidance and Protection" in the first year of Reiwa by the National Police Agency)

The number of "children punished for cannabis abuse" has been increasing since 2013, and it has increased tenfold in the last 6 years. Looking at the breakdown by age group, teens and those in their 20s account for more than 40% of this number, and the proportion of young people using cannabis is higher than that of other drugs. Therefore, it would be desirable to enhance preventive education regarding this issue in the educational context.

1 Physique



Note: All figures show the trend when the value in 1960 was set to 100 percent.

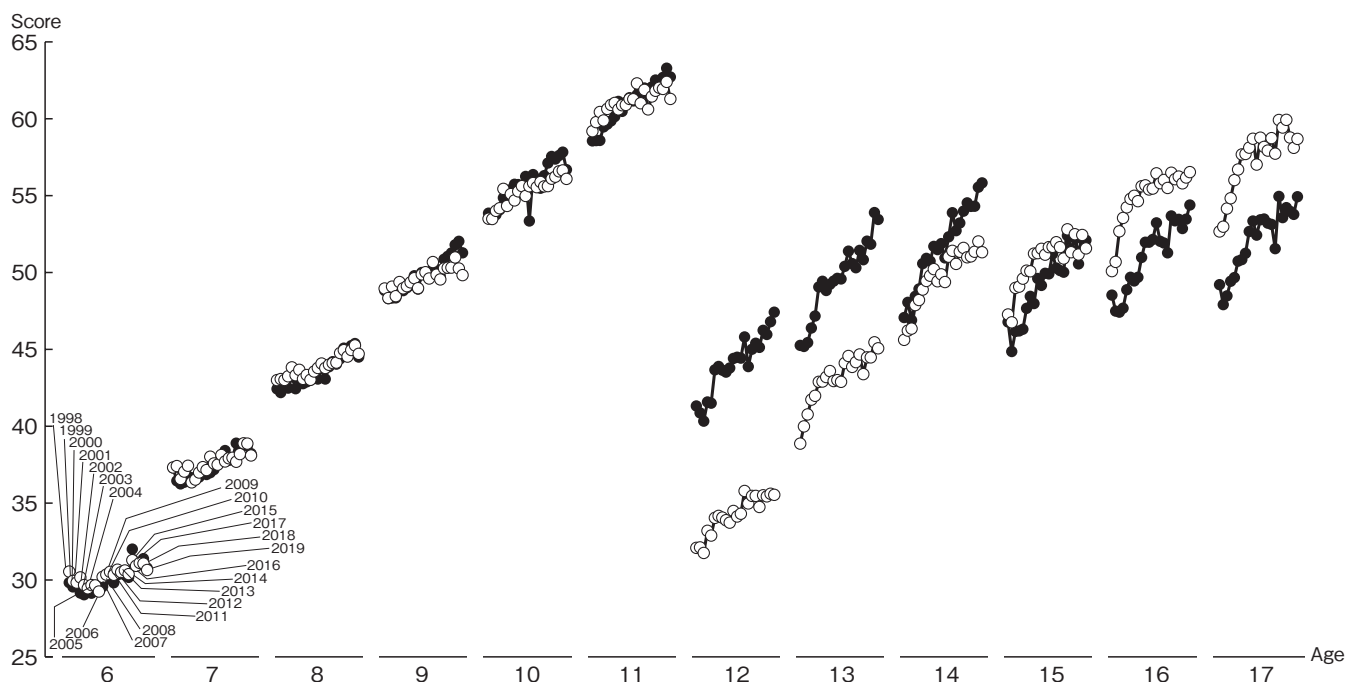
▲1-1 : Trends in height, weight, and chest circumference in 17 year-olds

(from the "Annual Report of School Health Statistics Research" by the Ministry of Education, Culture, Sports, Science, and Technology)

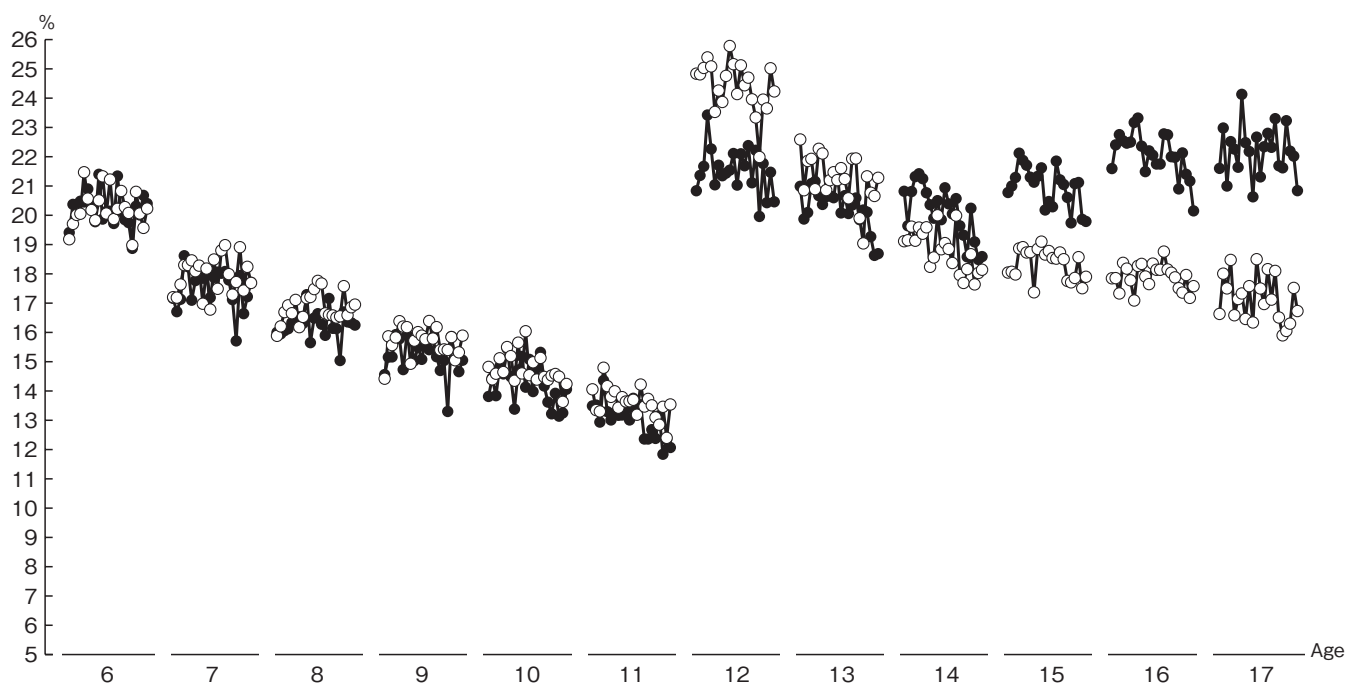
These figures show the annual changes in height, weight, chest circumference, and sitting height of 17 year-olds, whose bodies are believed to have almost completed their morphological development. However, since the units of measurement were different for height, chest circumference, sitting height, and weight, we observed the changes that occurred when the average value of each index by gender was set to 100% in the 1960s.

Both figures show an upward trend, and it can be observed that the size of children has grown in the last half-century. It can be also observed that, in boys, the increase in weight was extremely large compared to the increase in height. In girls, sitting height hardly increased compared to height.

2 Physical fitness and motor ability



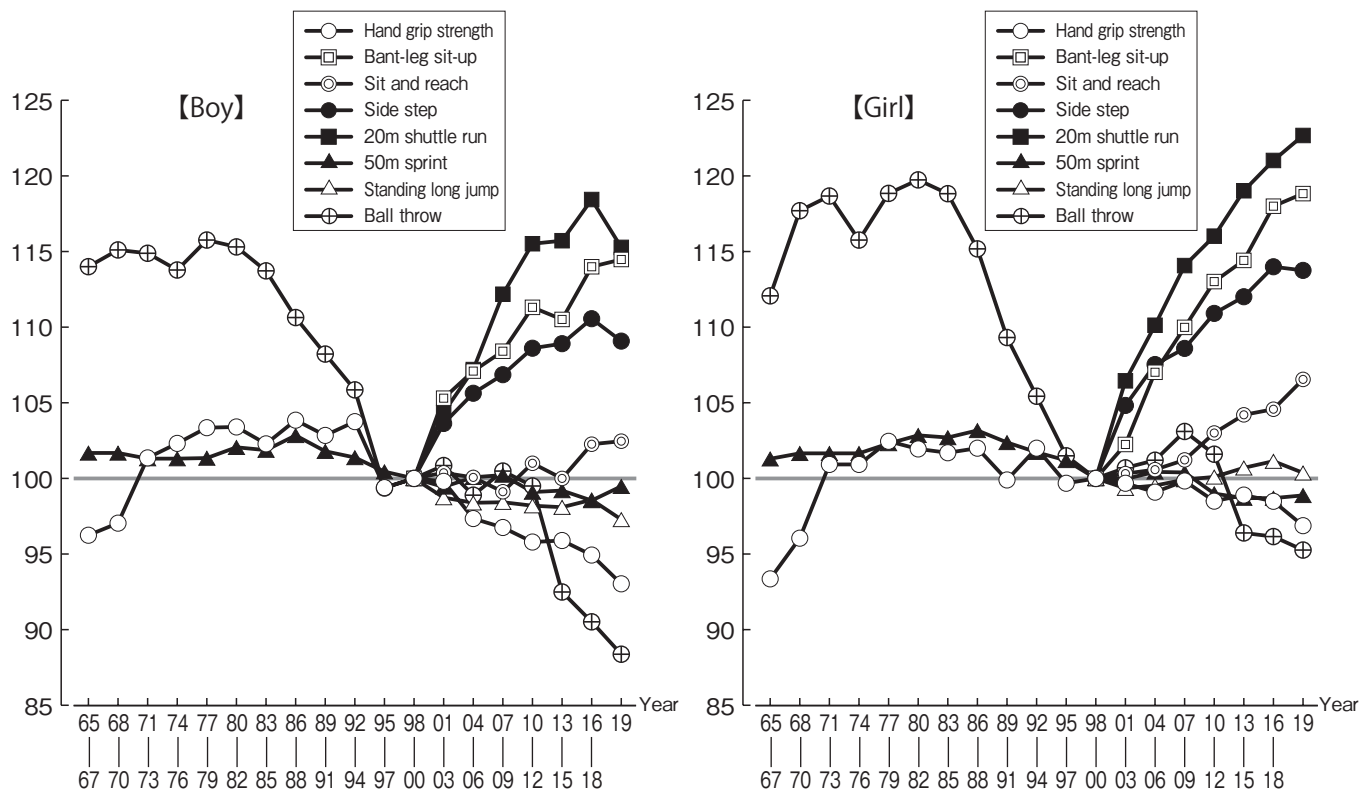
(a) Annual change of average score



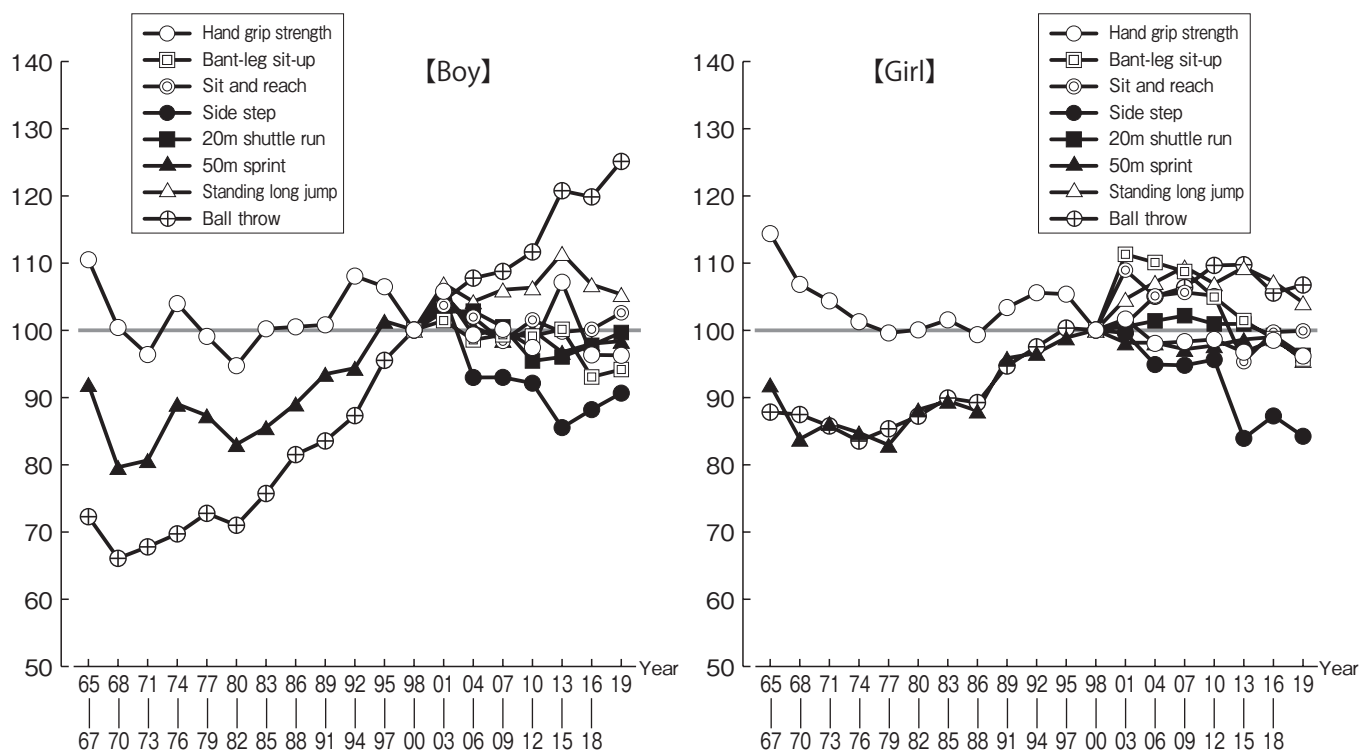
(b) Annual change in coefficient of variation

▲2-1 : Trends in the average and coefficient of variation of the “new physical fitness test” total scores (from the “Annual Report of Physical Fitness and Motor Ability Survey” by the Japan Sports Agency)

In Japan, the results of the annual “Physical Fitness and Motor Ability Survey” conducted in the previous fiscal year were announced by Ministry of Education, Culture, Sports, Science, and Technology until 2014 and thereafter by the Japan Sports Agency. The upper figure on this page shows the average of the total scores and the lower shows the coefficient of variation. As shown in the upper figure, there appears to have been a continuous upward trend among students in all grades over the last 22 years. This finding contradicts worries about the supposed “decline of physical fitness” among children, which has concerned some for many years. In this regard, there appears to have been a fortuitous misunderstanding.



(a) Annual change of average of the "new physical fitness test" by component



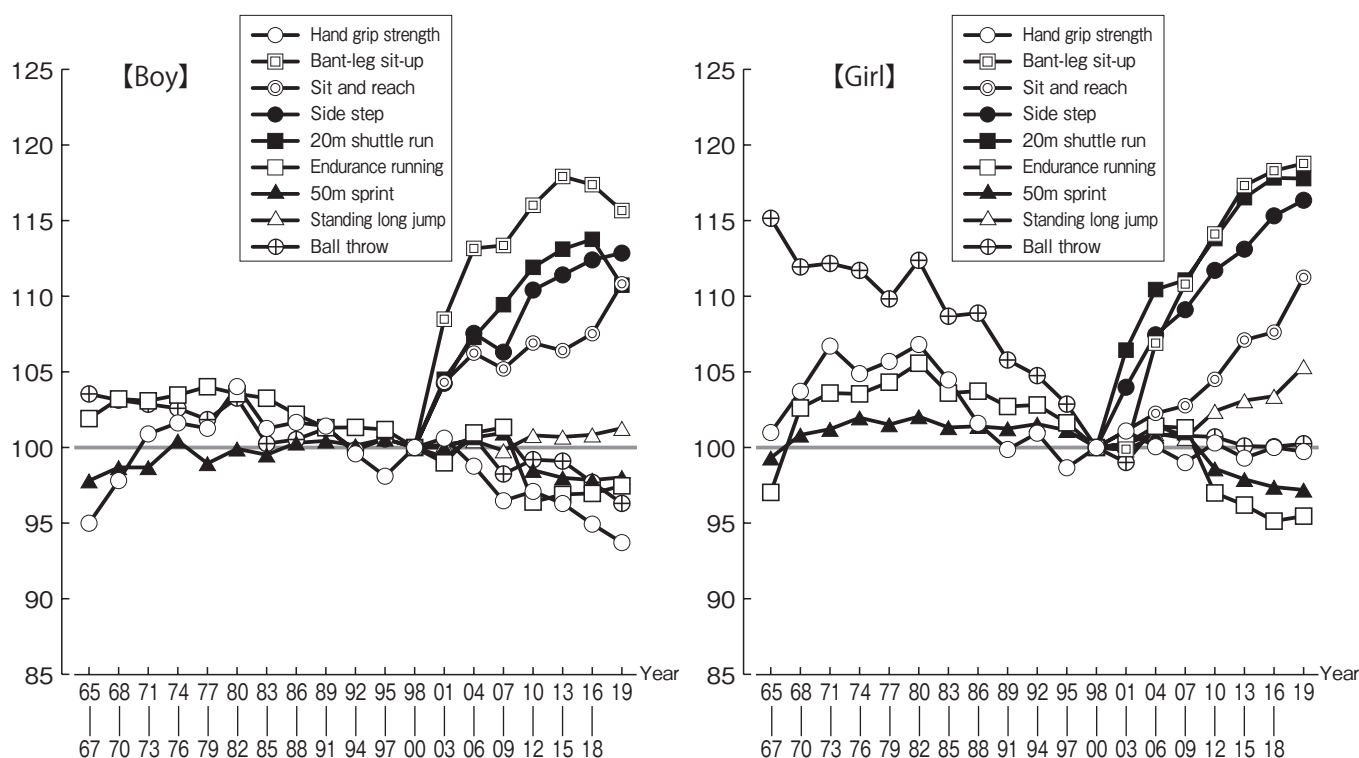
(b) Annual change of coefficient of variation of the "new physical fitness test" by component

Note: All figures show the trend when the values prior to 1998 to 2000 are set at 100 percent.

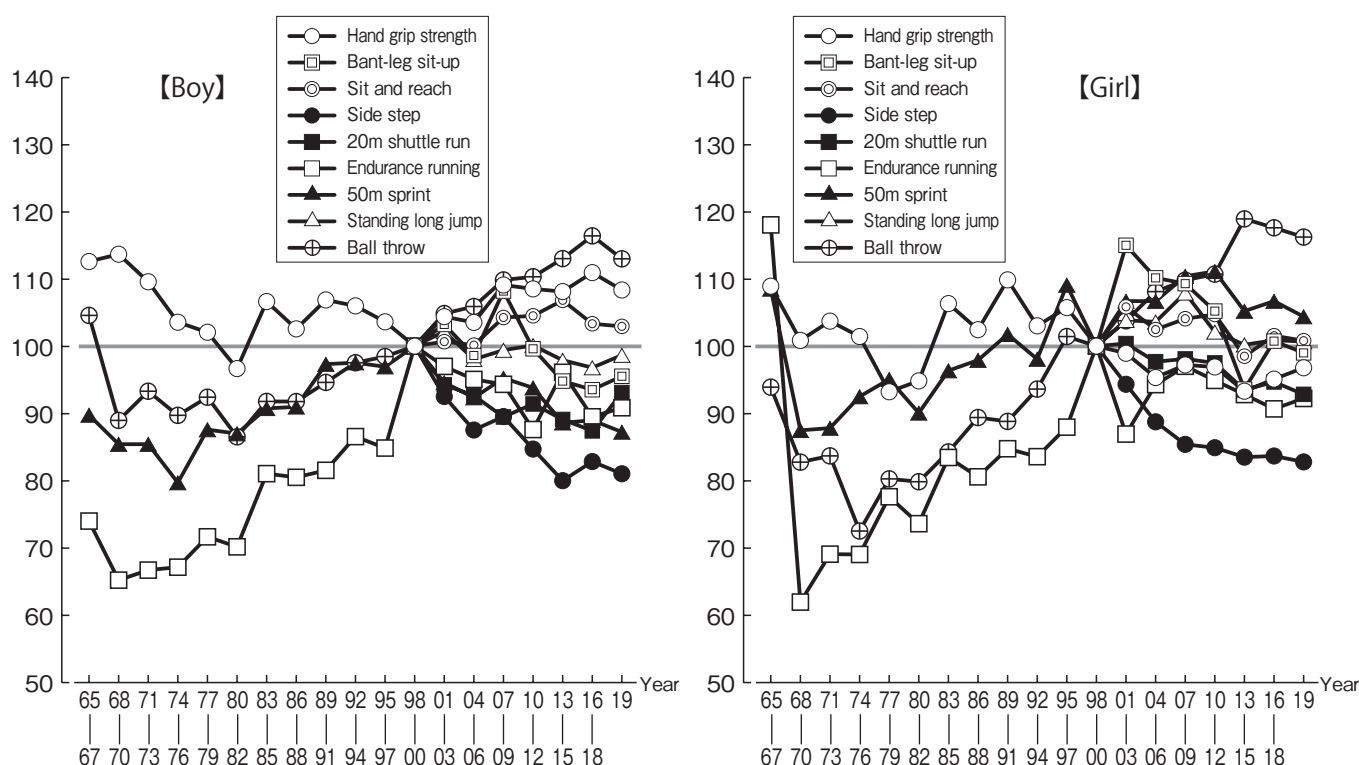
▲2-2 : Trends in the averages and coefficients of the variations in the "new physical fitness test" scores of 11 year-olds

(from the "Annual Report of Physical Fitness and Motor Ability Survey" by the Japan Sports Agency)

Looking at the yearly transitions in the average values for 11 year-olds, that of "ball throw" appeared to be on a downward trajectory in the 1980s and 1990s, when children's time spent playing games like "catch the ball" decreased, and it flattened in the 2000s. The value for this item is now declining again. However, no significant downward trend was observed for other items, except for the "grip strength" of boys, which was somewhat reduced. It can be also confirmed that the values for the "20m shuttle run," "repeated sit-up," and "repeated side-step" have been on an upward trajectory since 1998.



(a) Annual change of average of the “new physical fitness test” by component



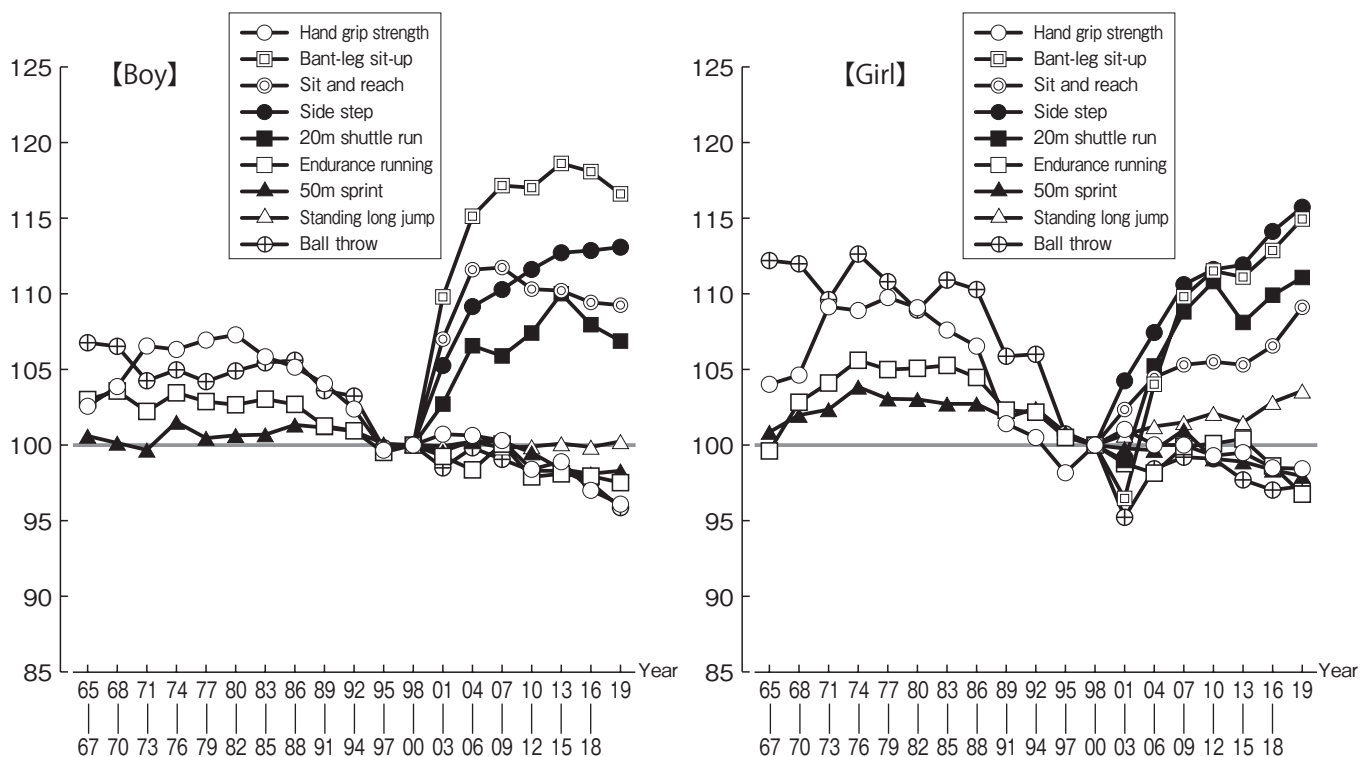
(b) Annual change of coefficient of variation of the “new physical fitness test” by component

Note: All figures show the trend when the values prior to 1998 to 2000 are set to 100 percent.

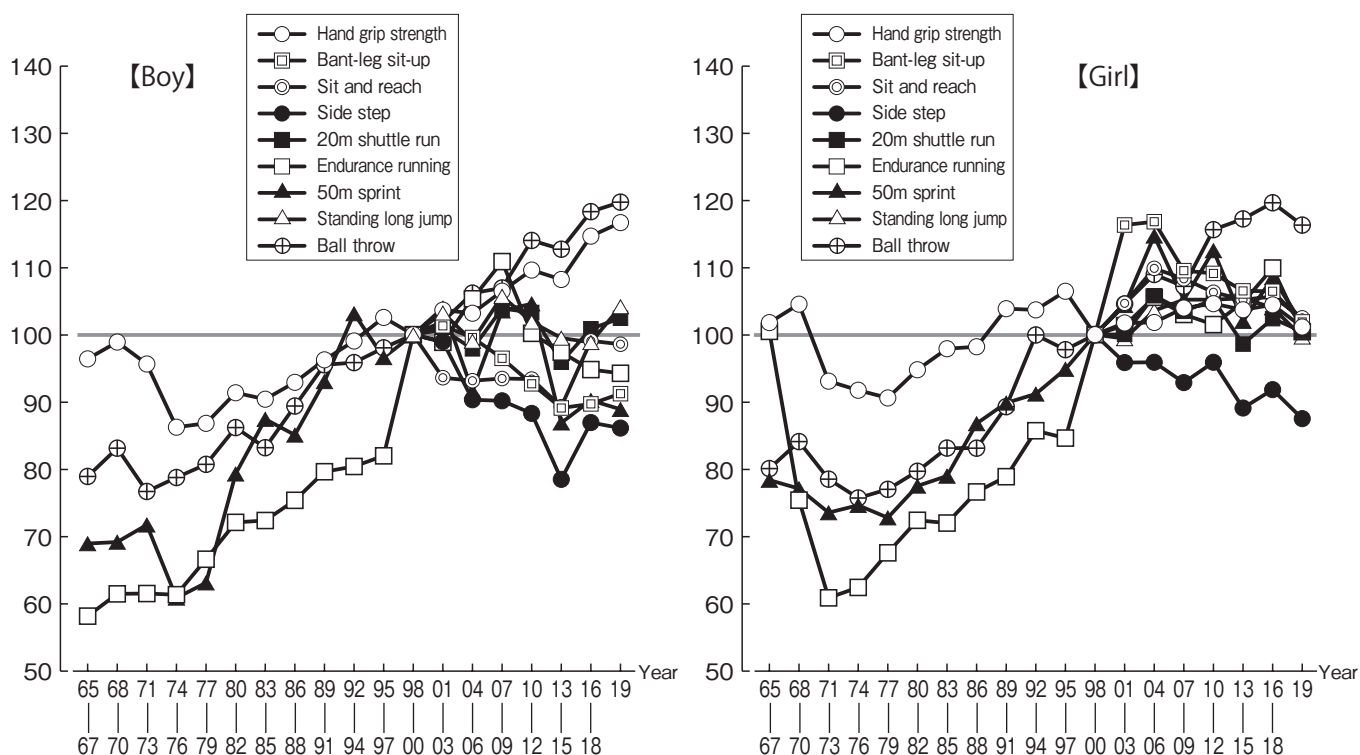
▲2-3 : Trends in the averages and coefficients of variation of the “new physical fitness test” scores of 14 year-olds

(from the “Annual Report of Physical Fitness and Motor Ability Survey” by the Japan Sports Agency)

Among 14 year-olds, it can be observed that girls’ “ball throw” scores declined from the beginning of the data-collection period to the late 1990s. In recent years, among both genders, the “long-distance run” and “50m run” scores have shown a gradual downward trend. However, for other items, in the case of 11 year-olds, no significant downward trend was shown; in addition, it can be observed that the scores for the “repeated sit-up,” “20m shuttle run,” “repeated side-step,” and “sitting flex” have been on an upward trajectory since 1998.



(a) Annual change of average of the “new physical fitness test” by component



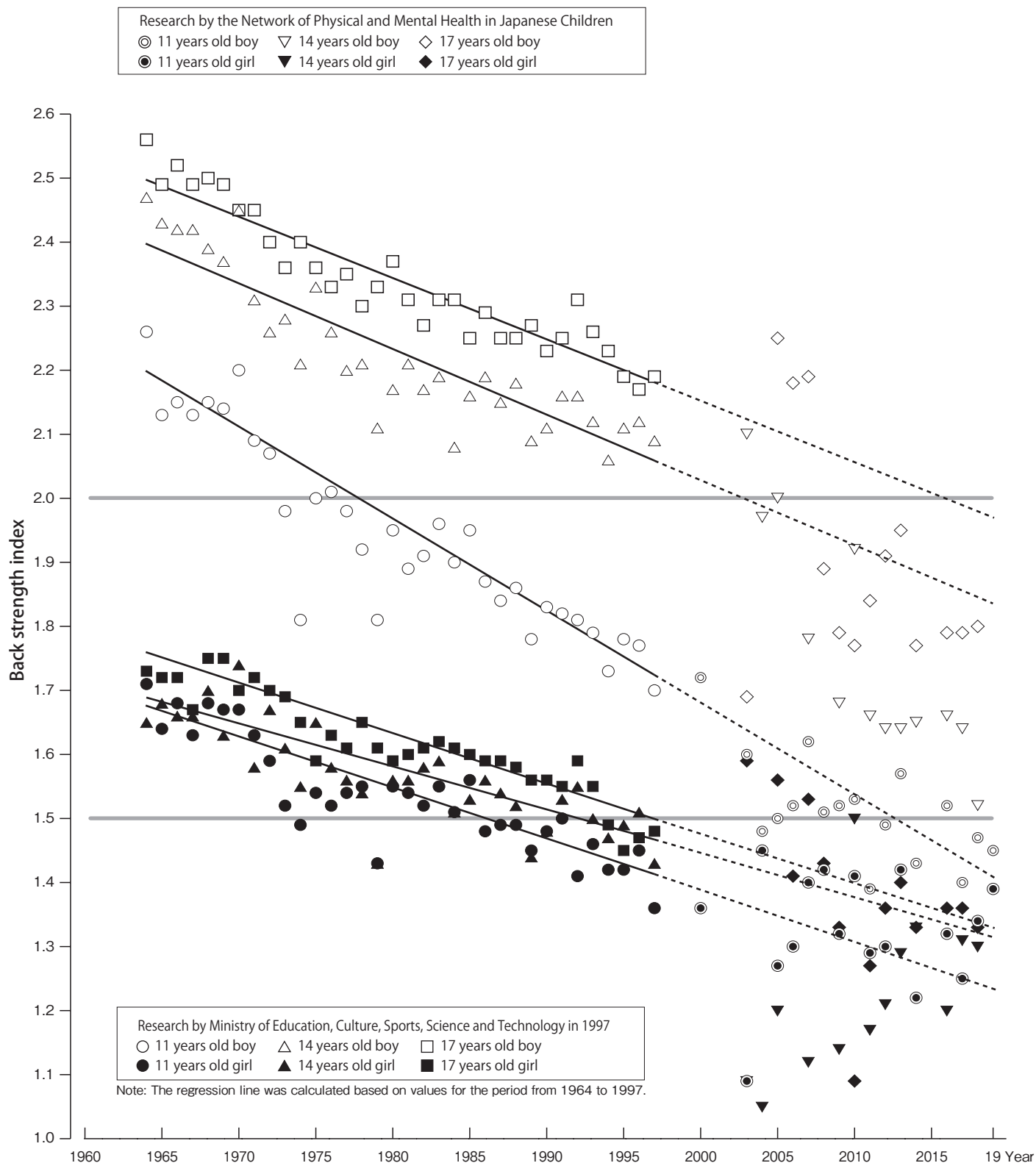
(b) Annual change of coefficient of variation of the “new physical fitness test” by component

Note: All figures show the trend when the values prior to 1998 to 2000 are set to 100 percent.

▲2-4 : Trends in the average and coefficient of variation of the “new physical fitness test” scores of 17 year-olds

(from the “Annual Report of Physical Fitness and Motor Ability Survey” by the Japan Sports Agency)

Seventeen year-olds demonstrate the same tendencies as 11 and 14 year-olds. There was no noticeable downward trajectory in any of the items; rather, the upward trajectory of “repeated sit-ups,” the “20m shuttle run,” the “repeated side-step,” and the “sitting flex” has become more marked since 1998.

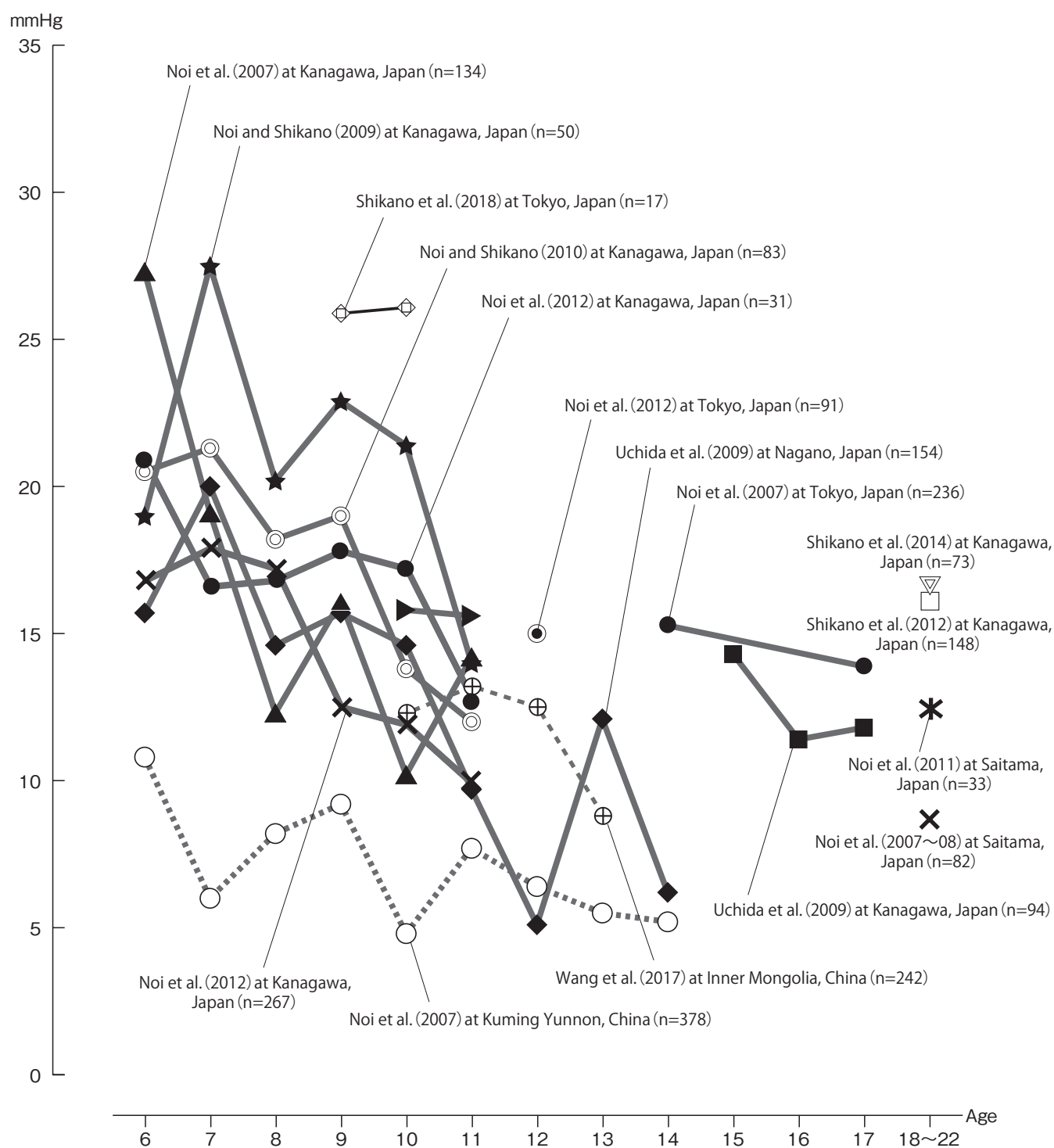


▲2-7 : Trends in the back strength index (value obtained by dividing the back strength by weight) of 11, 14, and 17 year-olds

(from the "Annual Report of Physical Fitness and Motor Ability Survey" up to 1997 by the Ministry of Education, Culture, Sports, Science, and Technology and from research by the National Network of Physical and Mental Health in Japanese Children)

From the national average of the physical fitness and motor ability surveys conducted from 1964 to 1997, the "back strength index" (BSI) for both genders and all ages, which was obtained by dividing the back strength by weight, appeared to have been on a consistent downward trajectory since the first survey. Our network has proposed a BSI of 2.0 for boys and 1.5 for girls as the goals to be achieved before graduating from high school; however, in the surveys conducted after 1998, when the items were reviewed, the "back strength" measurement appeared to have been deleted. Therefore, in this report, we have compiled the measurement results for each region and are creating the figure mentioned above with the intention of observing this trend until the downward trajectory stops. According to the data, it can be observed that the downward trajectory remains unchecked.

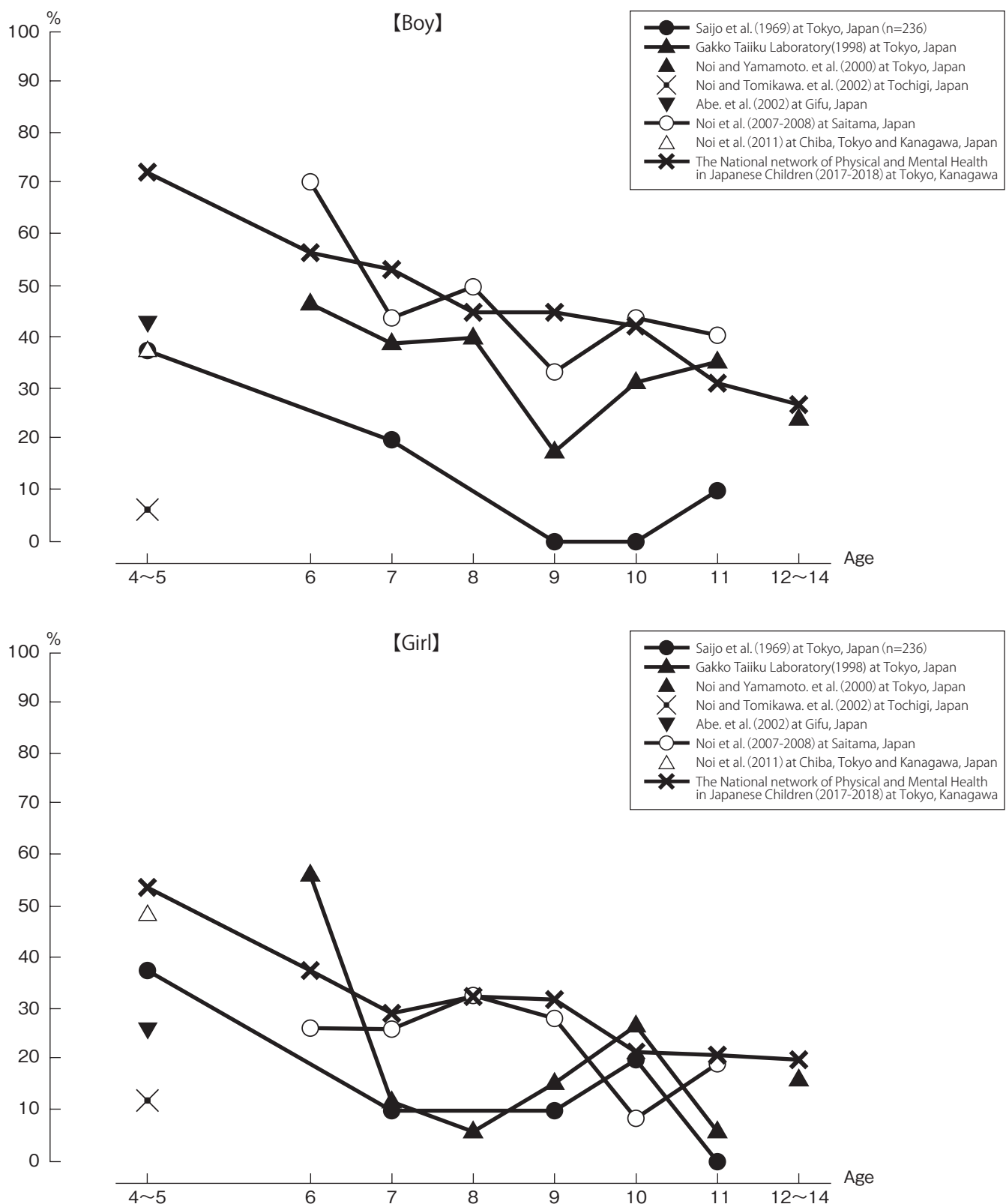
3 Autonomic nervous function



▲3-1 : Age-related trends in blood pressure responses to the “cold pressor test”

In Japan, some have been worried about the increase in conditions related to the autonomic nervous function of children. Therefore, to grasp the actual situation, in this report, we have continued to observe the results of a survey conducted using a measurement method called the “cold pressor test” (CPT). The CPT is used to determine the condition of one’s autonomic nervous function based on the blood pressure response when one hand is immersed in ice water at 4°C for 1 minute. The figure shows the increase in blood pressure (pressurized reaction: PR) due to cold water stimulation for each survey. As can be seen, the results of the survey conducted in Kunming, China (2007) show a smaller PR than any survey conducted in Japan, and some have become worried that the sympathetic nerves of Japanese children are too easily stimulated.

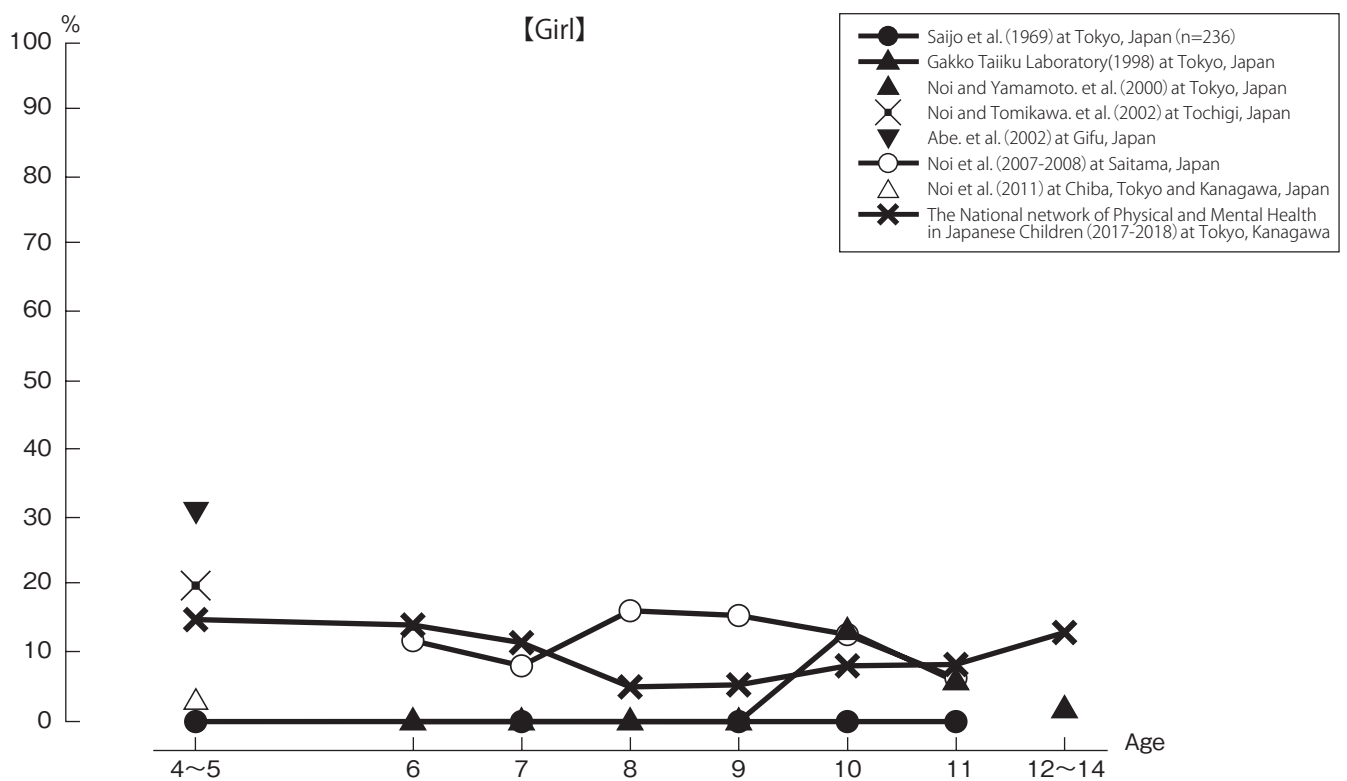
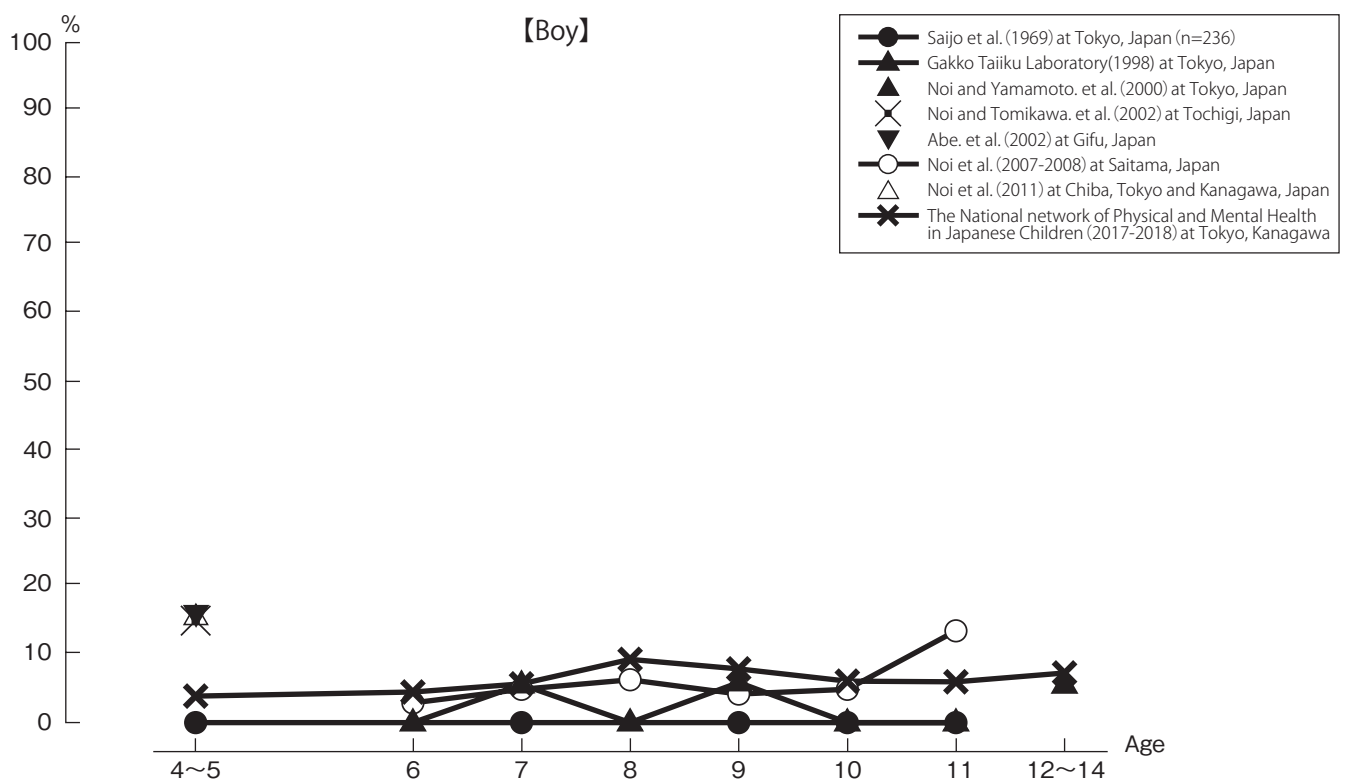
4 Frontal lobe function



▲4-1 : Age-related trends in the incidence of the “melancholic type”

In Japan, the development of children’s minds is also a concern. On the other hand, part of the physical foundation of the mind lies in frontal lobe function. Therefore, in this report, we have been continuing to observe the results of the survey conducted using the go/no-go task. The go/no-go task is one of the items used for measuring the functions controlled by the frontal lobe, such as intention, motivation, judgement, and concentration. The characteristics (types) of frontal lobe function can also be observed.

The figure shows the incidence of the “melancholic type,” which is considered the most childish of the five types. The mental function of this type of child is characterized by the fact that neither the excitation nor the inhibition process is fully developed, so children of this type tend to be fidgety and unfocused. It can be confirmed that the incidence of this type has increased from the 1969 survey to the 1998 and 2007-08 ones, and there has been concern about childhood developmental delays among boys. In addition, based on the results of the 2017-18 survey, it appears that the incidence of this type among both genders was about the same as in the 2007-08 survey.

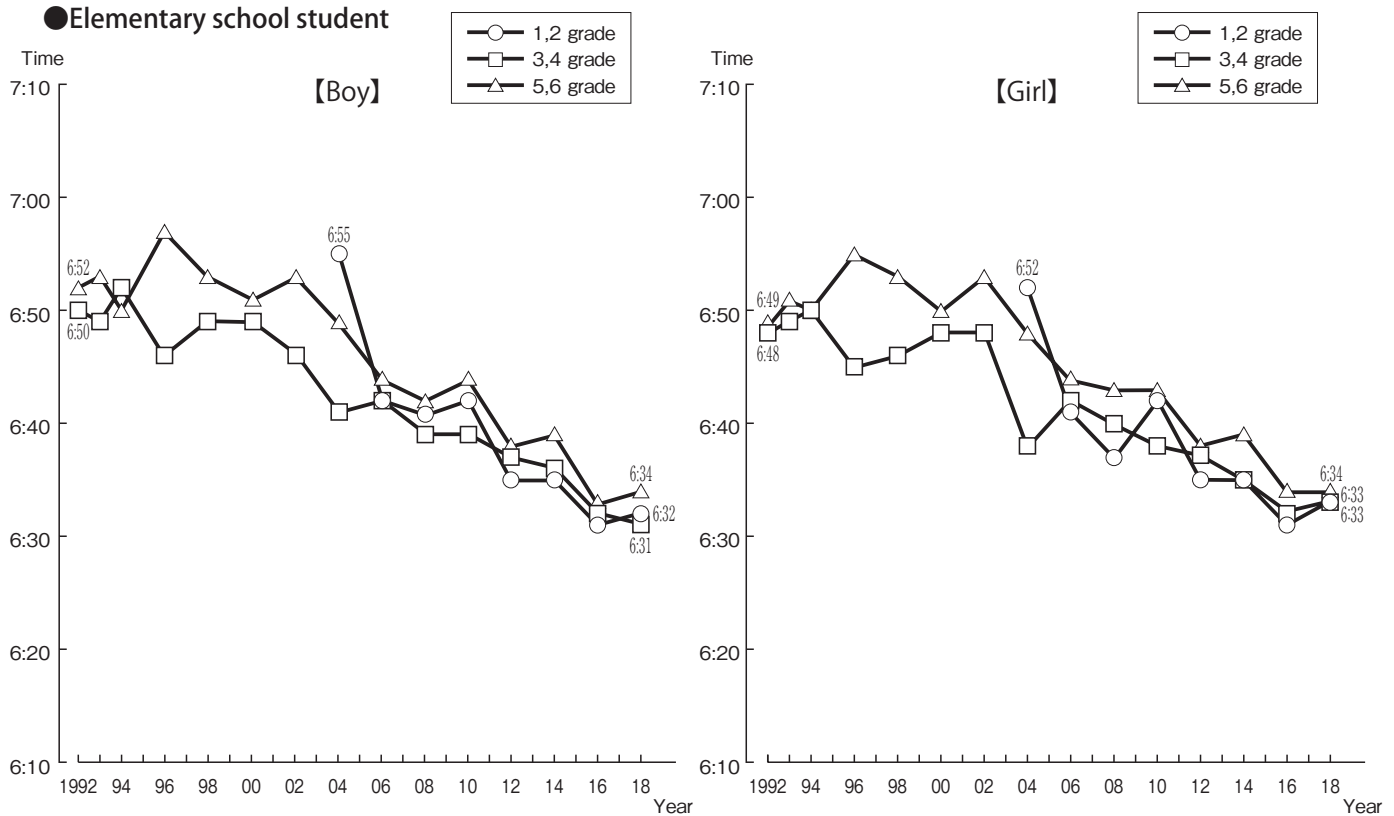


▲4-2 : Age-related trends in the incidence of the “inhibitory type”

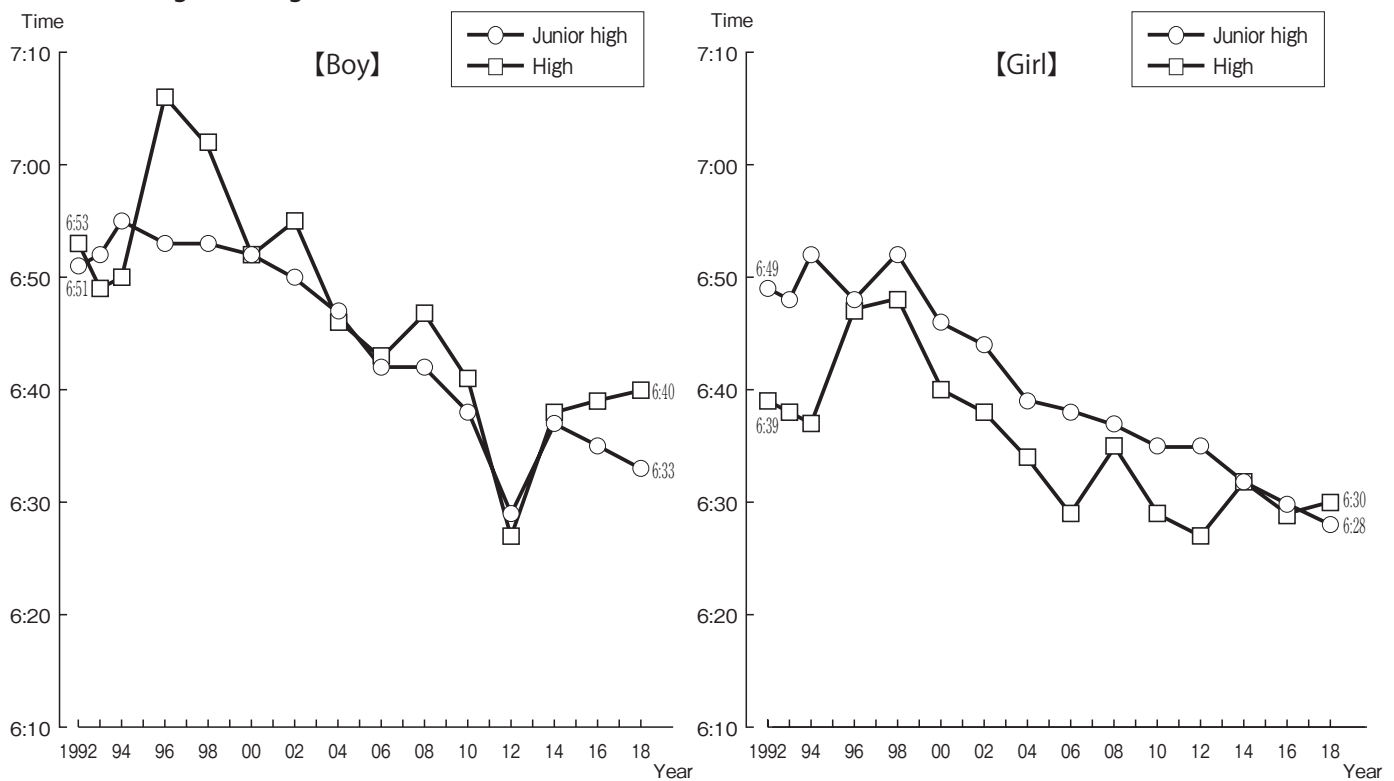
The “inhibitory type” is a type of child in which the inhibition process is strong in relation to the excitation process. This type of child often has difficulty expressing their feelings appropriately. No one of this type was observed in the 1969 survey, but this type of child has increasingly been observed in subsequent surveys regardless of age. Looking at the results of the latest survey from 2017-18, it appears that about 10% of children in all age groups were classified as this type.

1 Sleeping Conditions

● Elementary school student



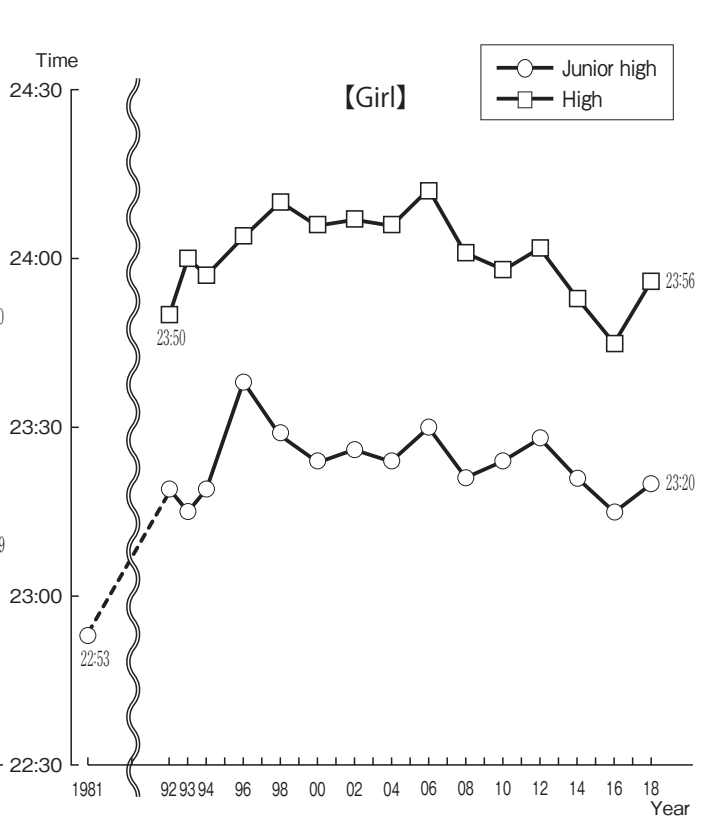
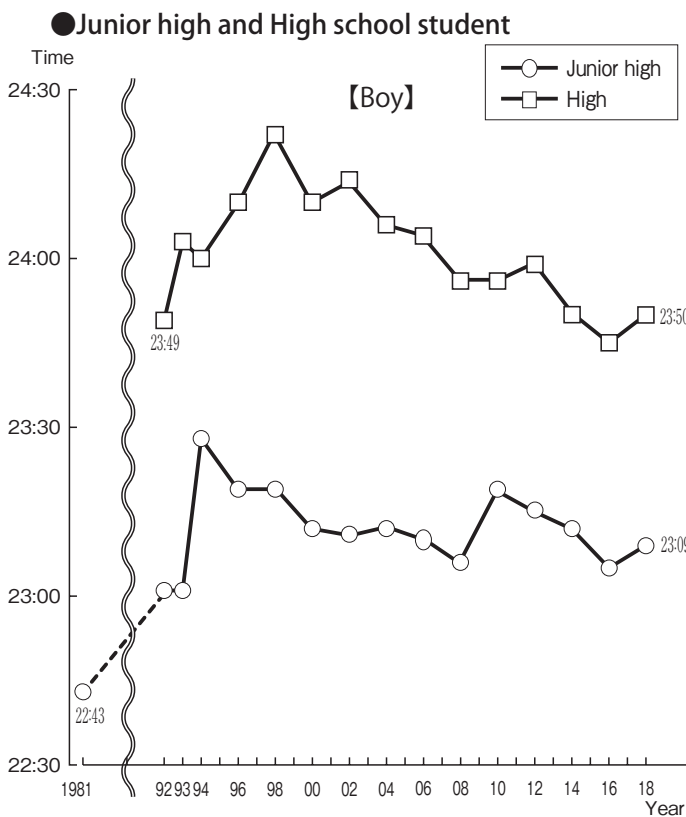
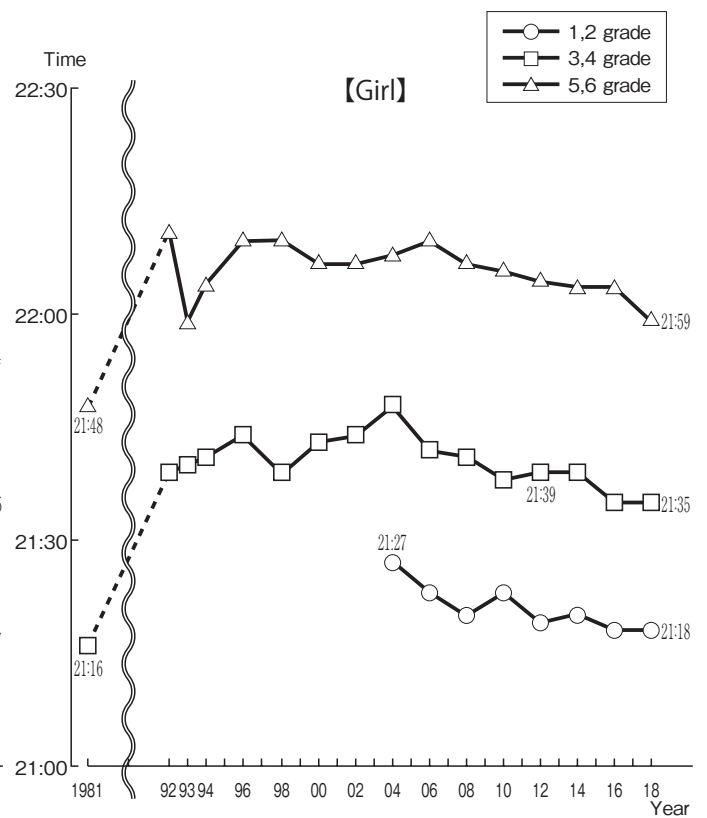
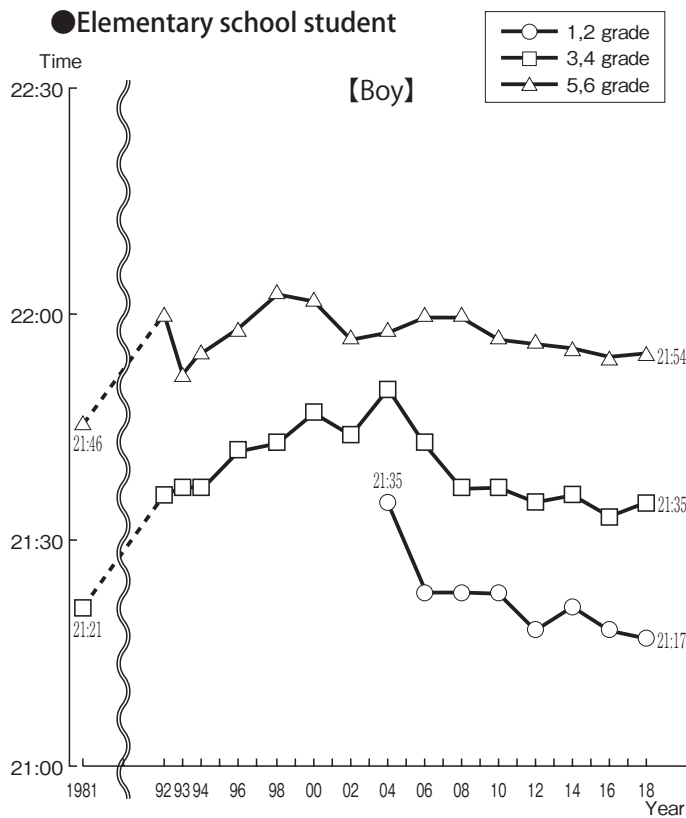
● Junior high and High school student



▲1-1 : Trends in wake-up times

(from the enterprise report on health status surveillance among children by the Japan Society of School Health)

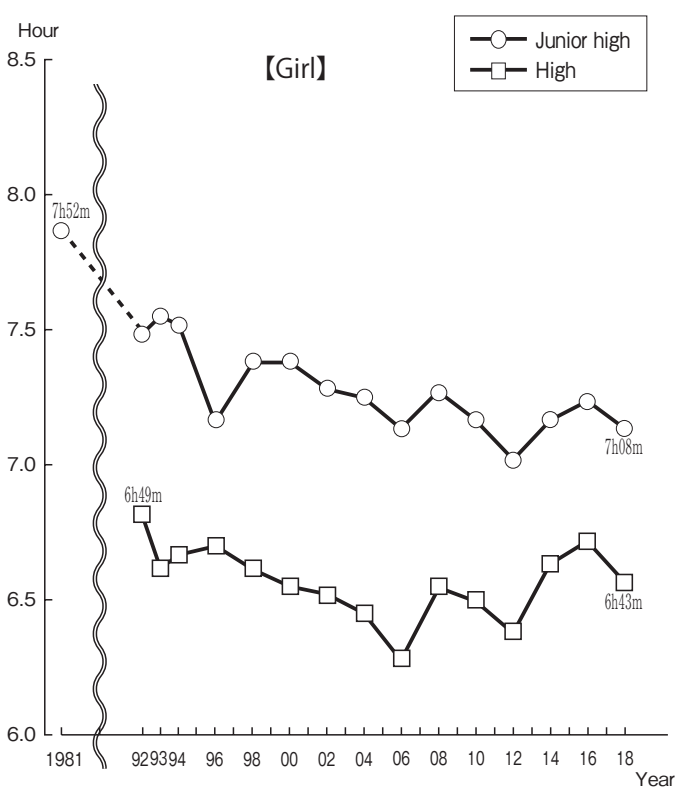
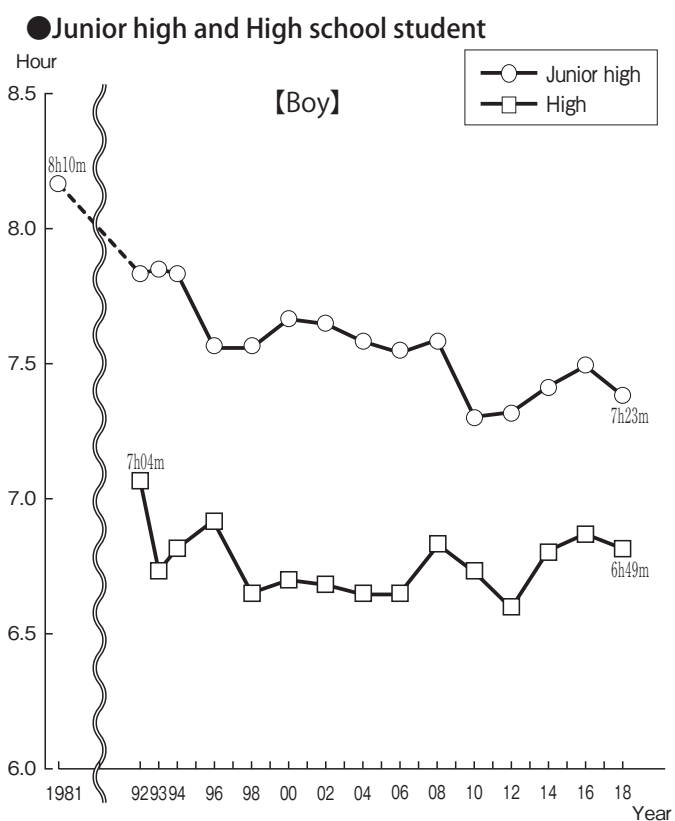
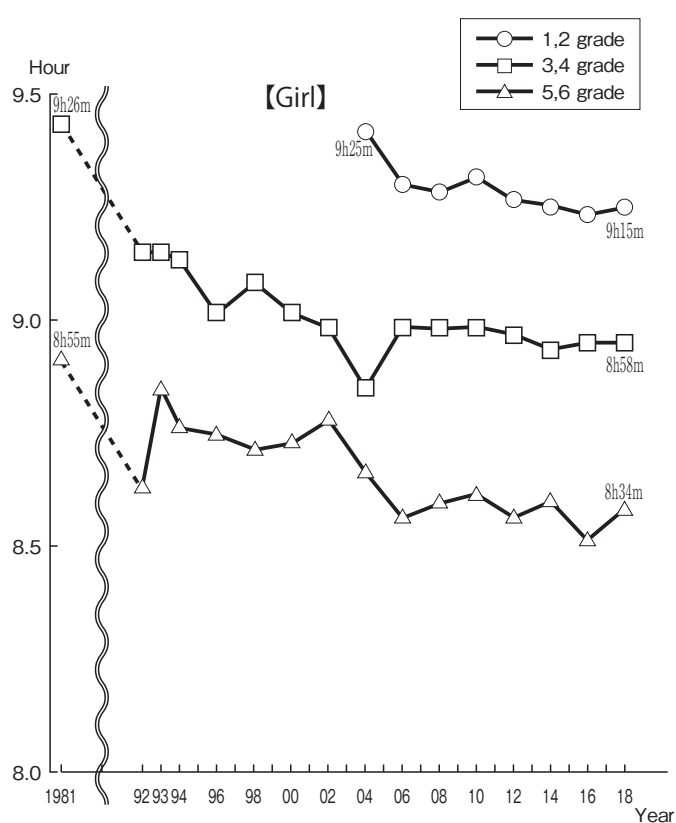
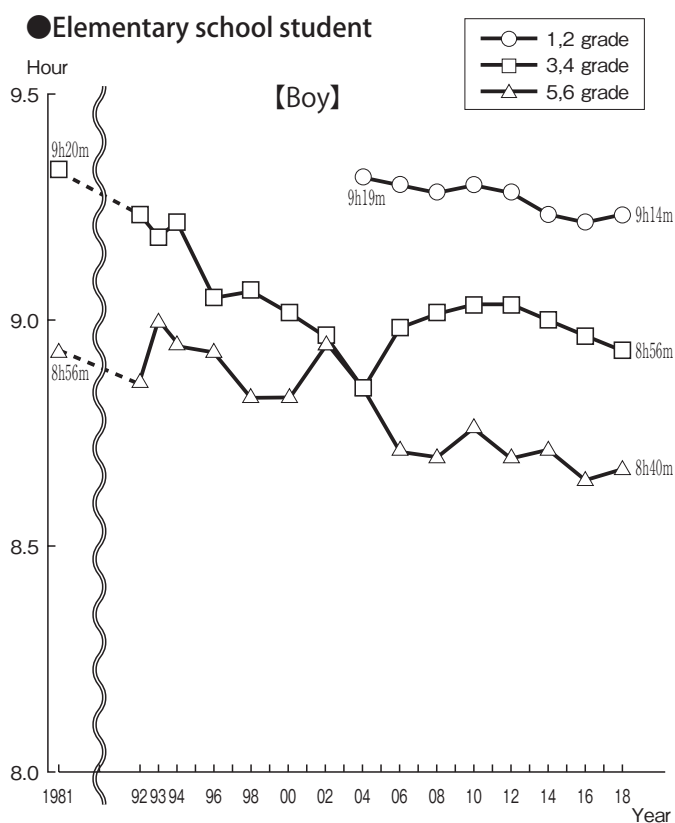
Compared to the beginning of this survey, wake-ups times gradually occurred earlier among students in all grades. In elementary school, there were no differences between the genders, but in junior high and high school, girls tended to wake up earlier than boys.



▲1-2 : Trends in bedtimes

(from the enterprise report on health status surveillance among children by the Japan Society of School Health)

Students' bedtimes tend to become more delayed as they age. Over the last few years, the bedtimes of students in all grades have remained constant or begun at slightly earlier times of the day; however, students' bedtimes began later than those reported in the 1981 survey.



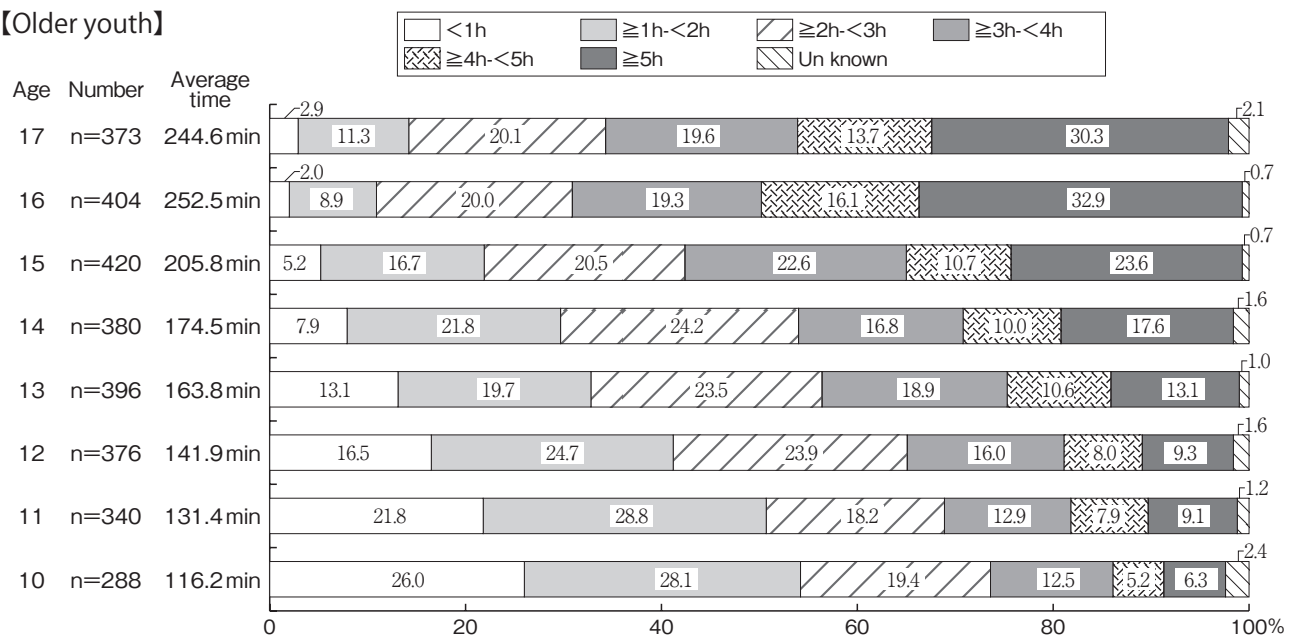
▲1-3 : Trends in sleep duration

(from the enterprise report on health status surveillance among children by the Japan Society of School Health)

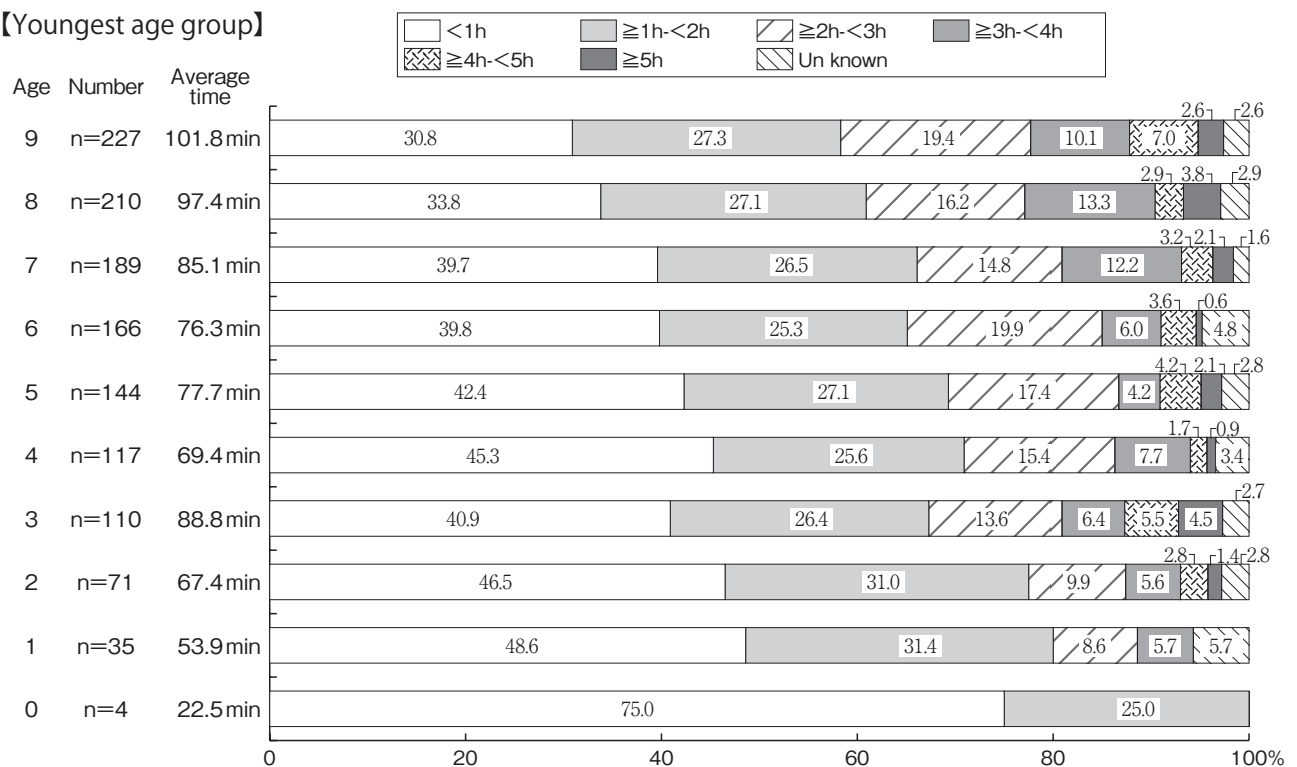
Sleep duration decreases as students age. Compared to the results of the 1981 survey, the number of hours spent sleeping decreased (3rd and 4th grade: 24 minutes for boys and 28 minutes for girls, 5th and 6th grade: 16 minutes for boys and 21 minutes for girls, junior high school: 47 minutes for boys and 44 minutes for girls). Among those in the 5th/6th grades and junior high school, the sleep duration of girls was shorter than that of boys. In addition, compared to the recommended sleep duration for each group established in 2015 by expert panels working with the National Sleep Foundation in the United States, the sleep duration of students in all grades was too short.

2 Electronic media

【Older youth】



【Youngest age group】



▲2-1 : Length of Internet use by age

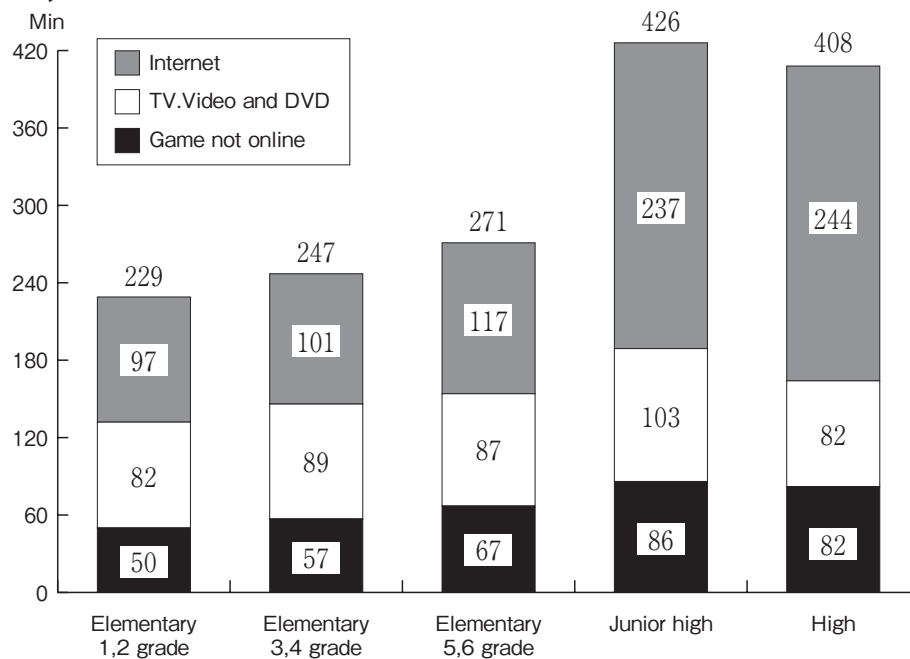
(from the "Report on the Actual Condition of the Internet Use Environment of Youth" by the Cabinet Office)
https://www8.cao.go.jp/youth/youth-harm/chousa/net-jittai_list.html

Note: The survey for the youngest age group (0 to 9 years old) was conducted with the children's parents. The survey for older youths (10 to 17 years old) was conducted with the children. Therefore, it is impossible to compare the results directly. For those who answered, "I use the Internet," the amount of time spent on the Internet on weekdays (excluding weekends) was surveyed.

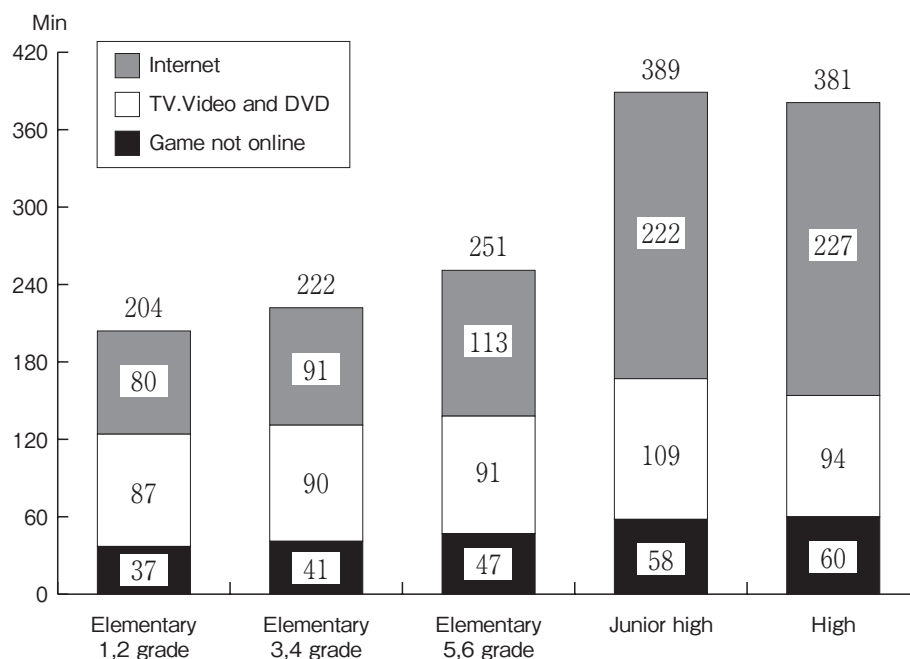
Note: The responses to "use the Internet on one of the 15 devices" given by the parents of young children and adolescents were tabulated.

The amount of time children spend on the Internet increases as they become older. In the youngest age group, which consisted of children up to 9 years old, more than half spent under 2 hours online, but, among youths between 10 and 17 years old, the amount of time spent online became longer, and the proportion of children using the Internet 5 hours or more increased rapidly.

【Boy】



【Girl】



▲2-2 : Average amount of screen time by age

(from the enterprise report on health status surveillance among children by the Japan Society of School Health)

Note: The total amount of time spent gaming, surfing the Internet, and watching TV was defined as “screen time.”

About 10% of children in the 1st to 4th grades have used an SNS, but the ratio increases as they become older (5th and 6th grades: 20%, junior high school students: 50%, high school students: 90%). As for their reasons for Internet use, the percentage who responded affirmatively to “have played online games” was high in all grades. For junior high and high school students, the percentages responding affirmatively to “I have posted images and videos,” “I have expressed my own opinions and things around personal belongs,” “I have met people online,” and “I have paid for these services” were also high, especially among girls. The average amount of screen time was around 3-4 hours for elementary school students and 6-7 hours for junior high school students. Compared to the results of the previous survey, the amount of “time spent watching TV, videos, and DVDs” appeared to be on a downward trajectory, but the amount of “time spent on the Internet” increased among students in all grades, especially among boys in junior high school, whose reported screen time was 25 minutes longer than it was the previous survey.

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