R&D Head Club
Clinical Trial Performance Survey in 2019
Excerpt

May, 2020

- This report is an excerpt from a distributed report to a R&D Head Club member company for a research discussion.
- Expenses for this report were borne by member companies of R&D Head Club.
- For the secondary use of this document, see p. 37.

Data Center & Working Group Members

The 2019 survey questionnaire was designed, conducted, and analyzed, and this report authored, by a working group made up of representatives from the following 5 companies who were appointed by the R&D Head Club.
In addition, since the questionnaire included questions about the intellectual property of the participating companies, the data center responsibilities were delegated to Professor Masahiro Takeuchi of Kitasato University (R&D Head Club advisor, Professor in the Department of Clinical Medicine [Biostat] at Kitasato University), and all study sponsor names, diseases names, and study center names were masked so that the identities of the responding companies would not be known. The masked data were used for data totalization and analysis of the questionnaire.

Performance Working Group members　(abc order)

• Astellas Pharma Inc.	Development,	Kazuaki Gamo,
• Eli Lilly Japan K.K.	Clinical Development,	Shino Fujimoto,
• Janssen Pharmaceutical K.K.	Japan Clinical Operations Div, R&D,	Shiho Jokoji,
• Pfizer R&D Japan G.K.	Portfolio & Project Management,	Kei Yamashita,
• Shionogi & Co., Ltd.	Clinical Research Department,	Ai Nakamura,

Contents

I. Participating Companies

The survey has been conducted since 2004. The following 20 member companies of the R&D Head Club participated in the 2019 survey.

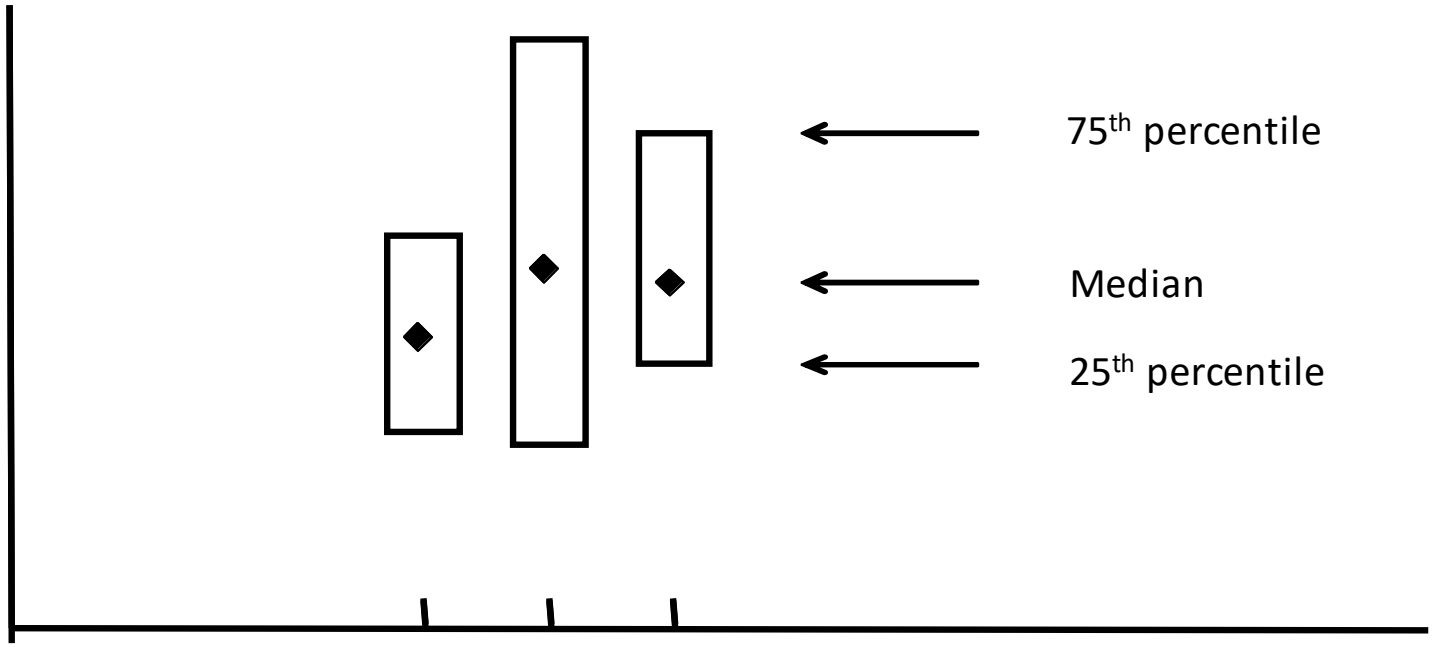
- **AbbVie GK**
- **Amgen K.K.**
- **Astellas Pharma Inc.**
- **AstraZeneca K.K.**
- **Bristol-Myers Squibb K.K.**
- **Chugai Pharmaceutical Co., Ltd.**
- **Daiichi Sankyo Co., Ltd..**
- **Eisai Co., Ltd.**
- **Eli Lilly Japan K.K.**
- **GlaxoSmithKline K.K.**
- **Janssen Pharmaceutical K.K.**
- **Japan Tobacco Inc.**
- **MSD K.K.**
- **Nippon Boehringer Ingelheim Co., Ltd.**
- **Novartis Pharma K.K.**
- **Otsuka Pharmaceutical Co., Ltd.**
- **Pfizer R&D Japan G.K.**
- **Sanofi K.K.**
- **Shionogi & Co., Ltd.**
- **Takeda Pharmaceutical Co., Ltd.**

II. Trials Targeted Items

- The survey has been conducted since 2004, and data is currently accumulated every 2 years

- Trials targeted by the 2019 survey
  - Studies completed between April 1, 2017 and March 31, 2019. (For 2 years)
  - Completed studies were regarded as completed with submission of the final report at the final study site in principle. Therefore, it should be noted that the results of the present data totalization do not include data of studies that required a long period of time to complete the study (studies that have not been completed at the time of the survey in fiscal year 2019).
  - Studies to be included were all clinical trials (including 'Oncology Phase I' and the vaccine study for healthy adults), except for the Phase I of healthy volunteer.
  - Data collected were comparatively investigated by dividing the period based on the starting year of each study into three segments “2009 to 2011,” “2012 to 2014,” and “2015 to 2018.”
  - Data at overseas study sites of the Global study were excluded in principle from the data totalization, except in comparison between the Global study and Japan local study, and the data totalization with the Global study in the background.

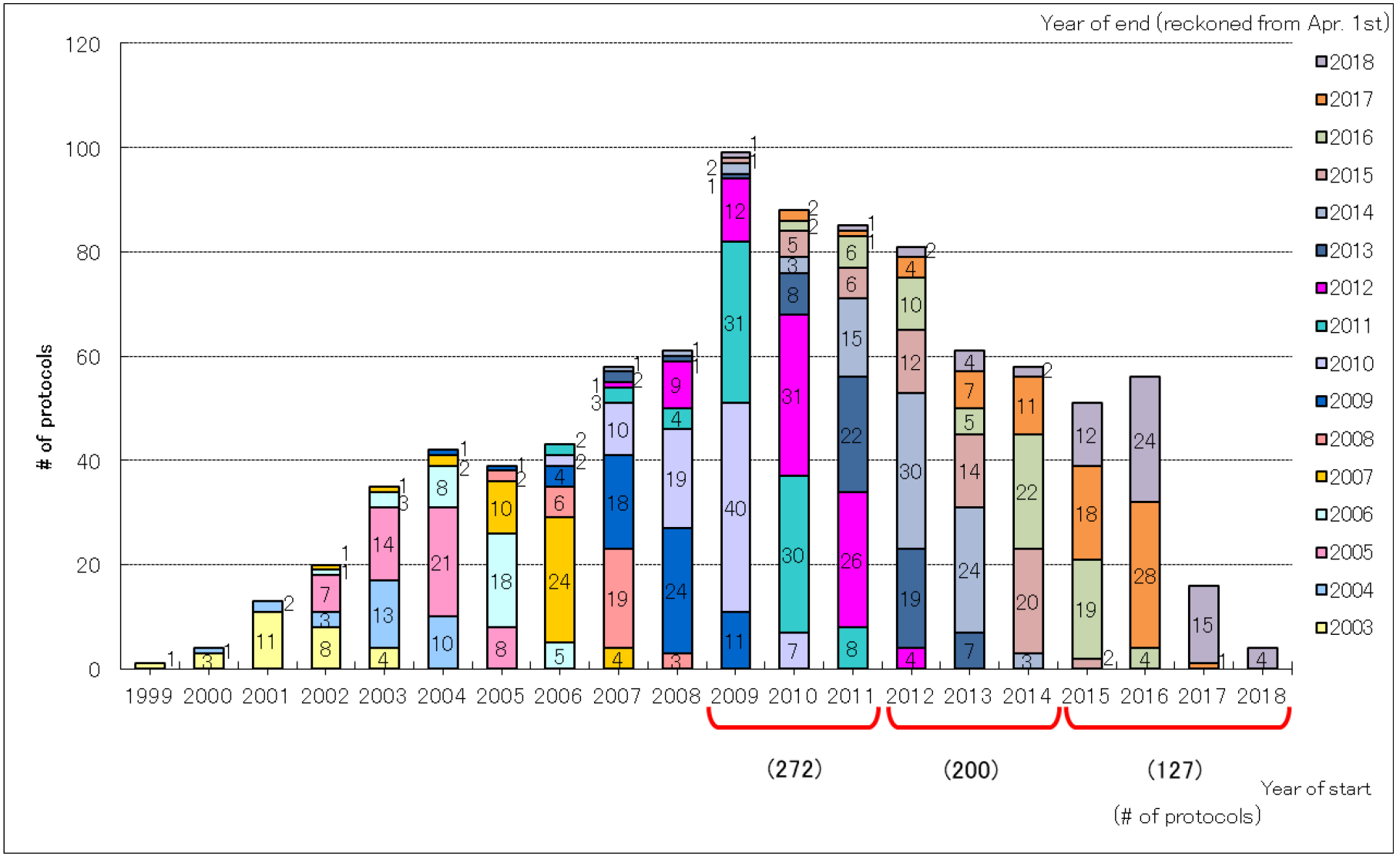
Explanation of a Figure and Box Plot



The lower and upper end of the box in the plot represent respectively 25% point and 75% point of the sample, and the diamond in the center represents 50% point (median).

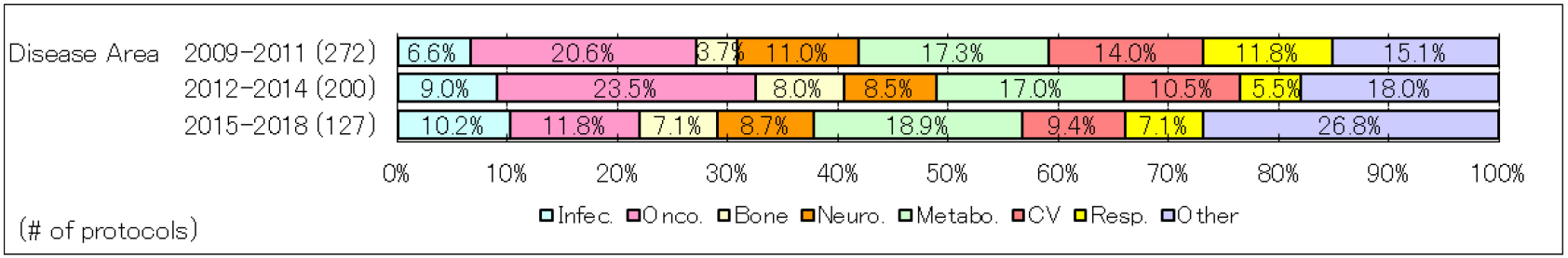
III-1 Background

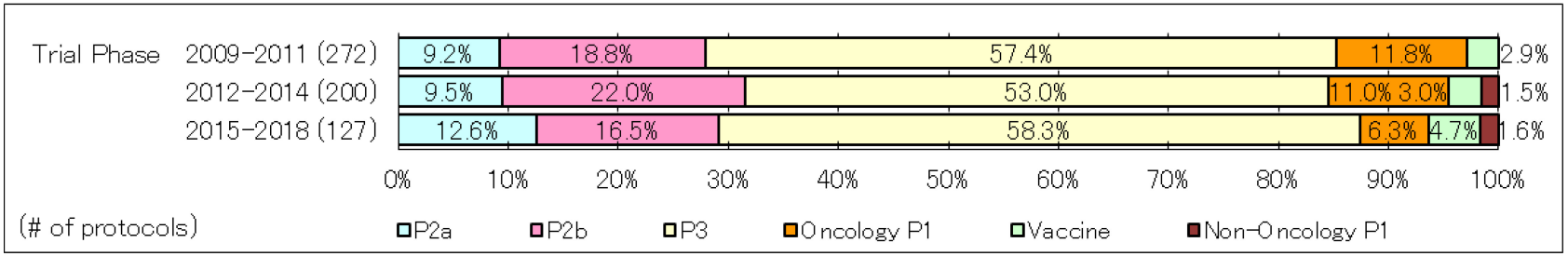
III-1-1 Number of Protocols by Starting Year

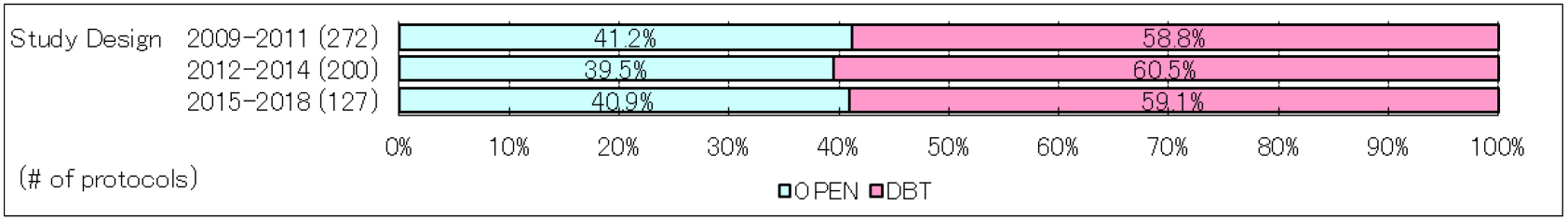


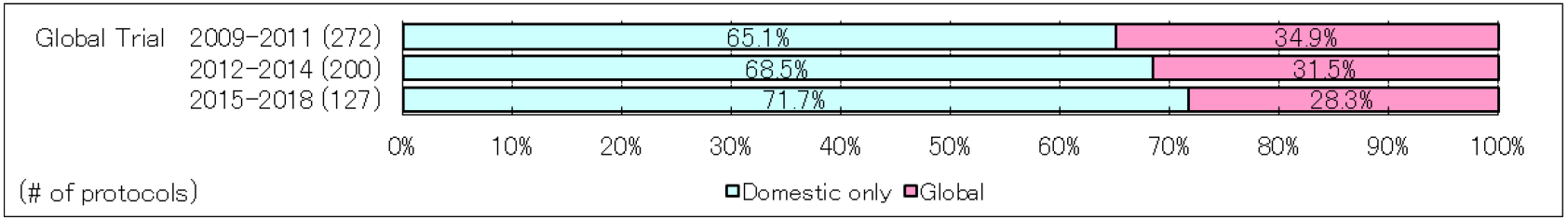
It should be noted that data from studies that take a long time to complete the study (studies not completed at the time of the 2019 survey) are not included.

III-1-5 Background of Protocols 1



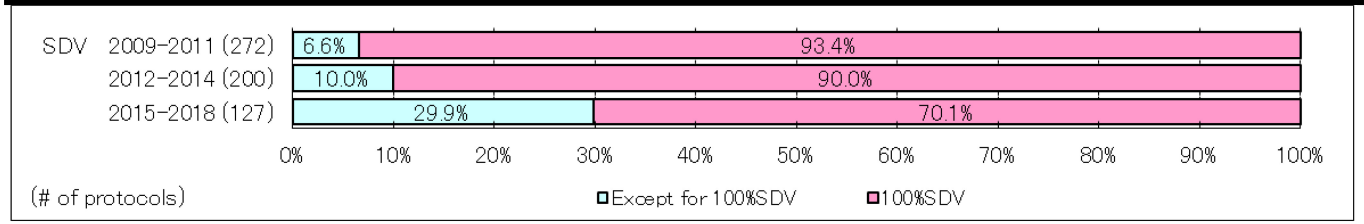


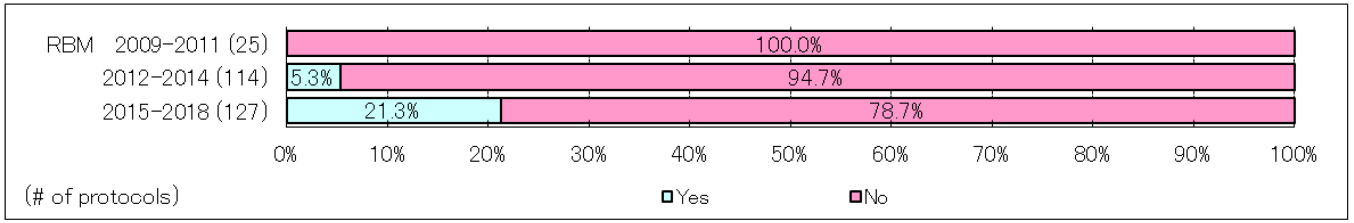




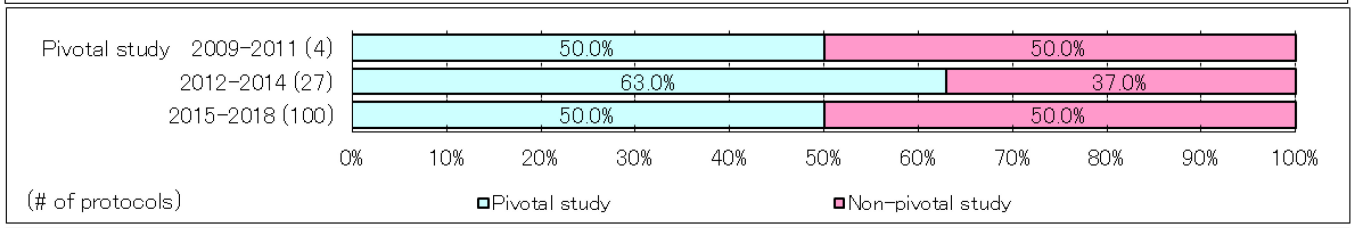
It should be noted that data from studies that take a long time to complete the study (studies not completed at the time of the 2019 survey) are not included.

III-1-5 Background of Protocols 2





(Survey started in 2017)



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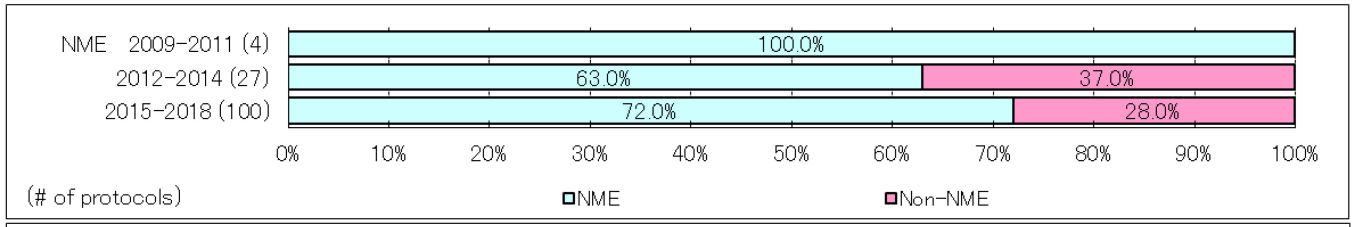
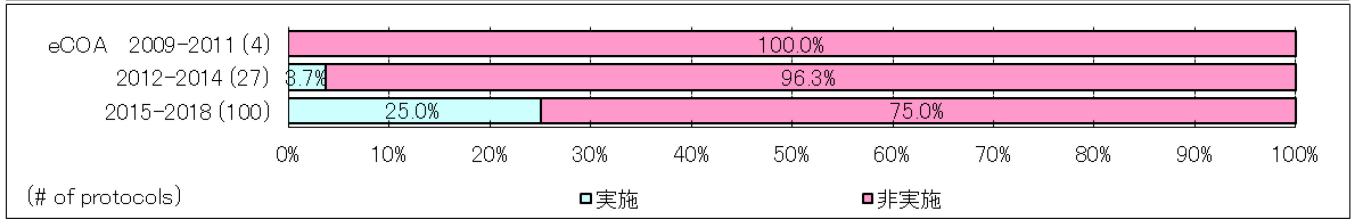


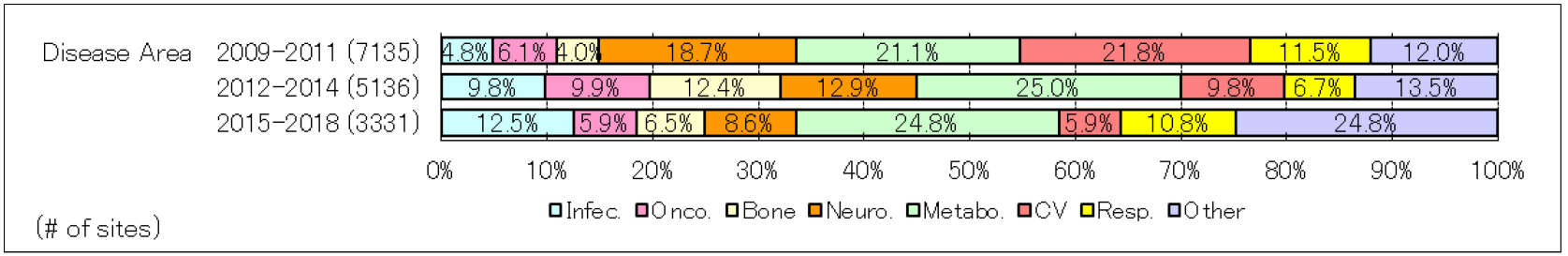
(Survey started in 2019)

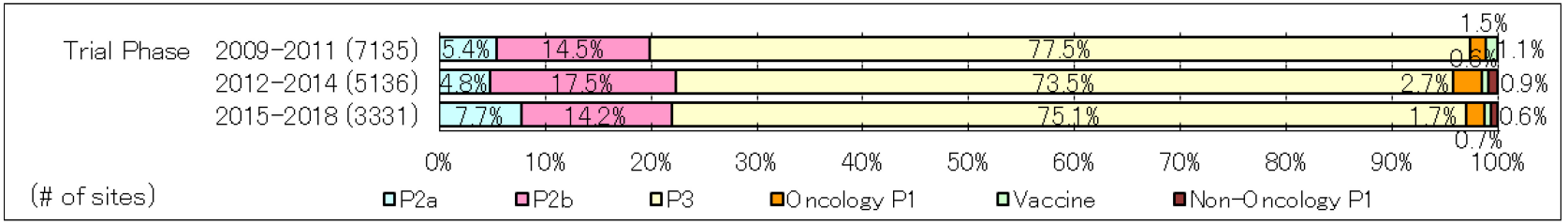


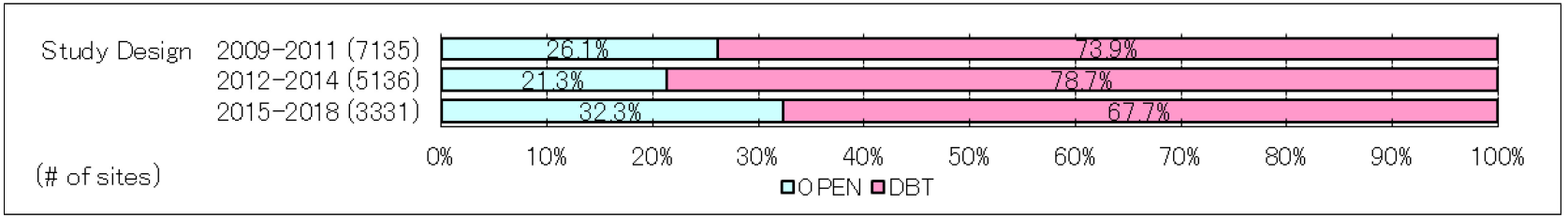
(Survey started in 2019)

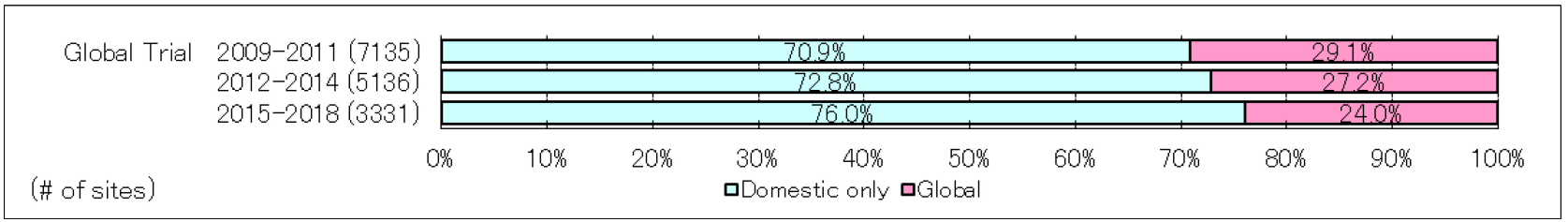
It should be noted that data from studies that take a long time to complete the study (studies not completed at the time of the 2019 survey) are not included.

III-1-7-1 Background of Sites 1



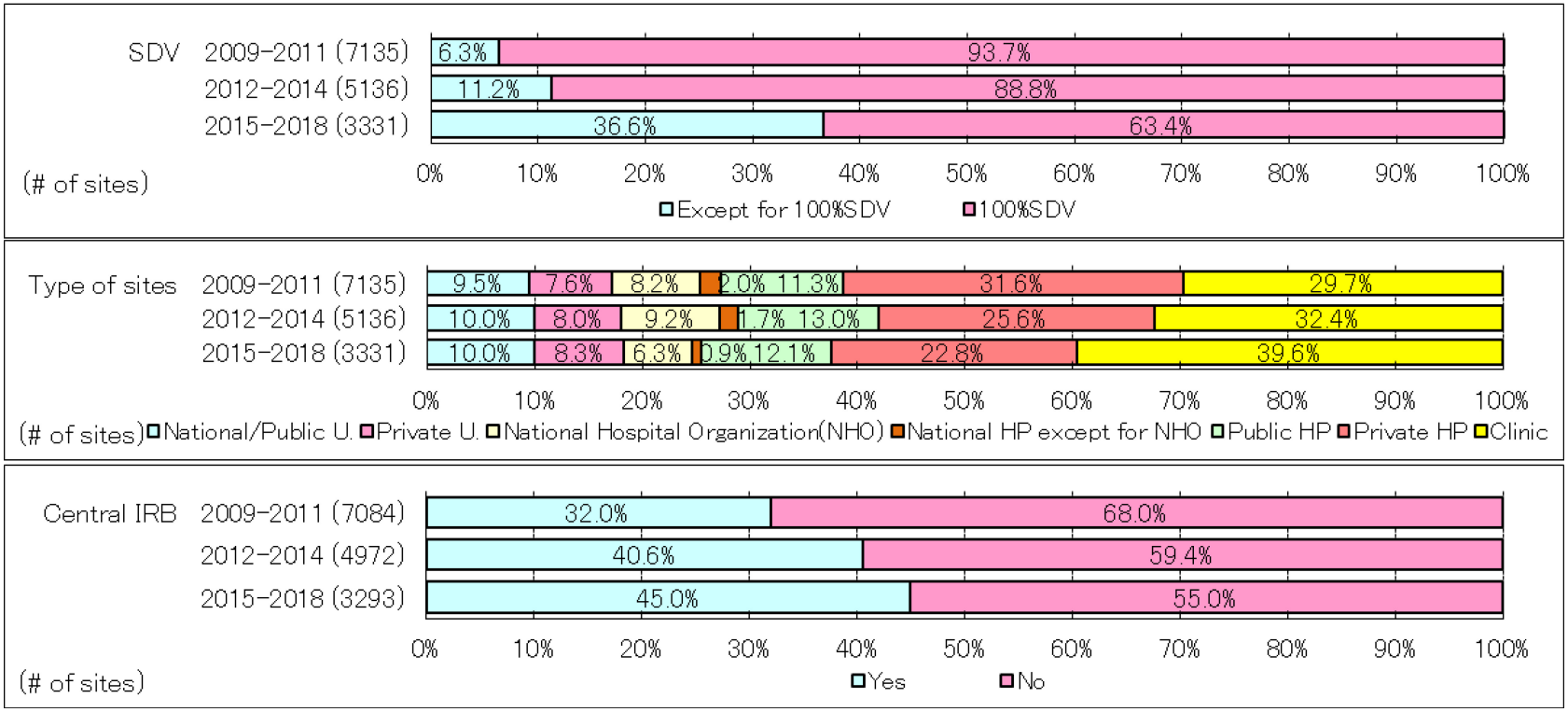






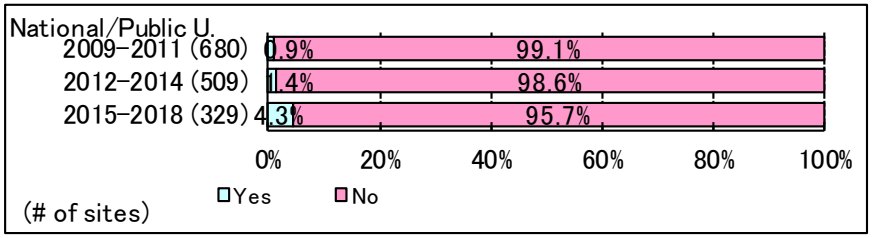
It should be noted that data from studies that take a long time to complete the study (studies not completed at the time of the 2019 survey) are not included.

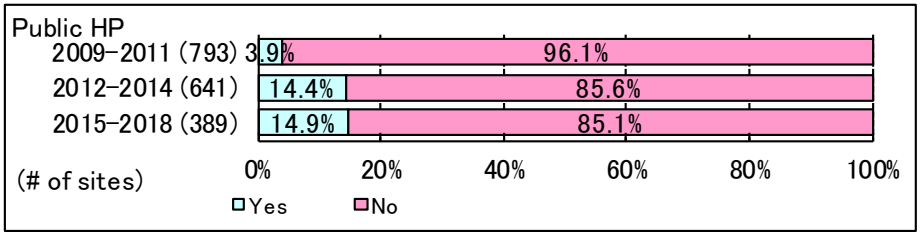
III-1-7-2 Background of Sites 2

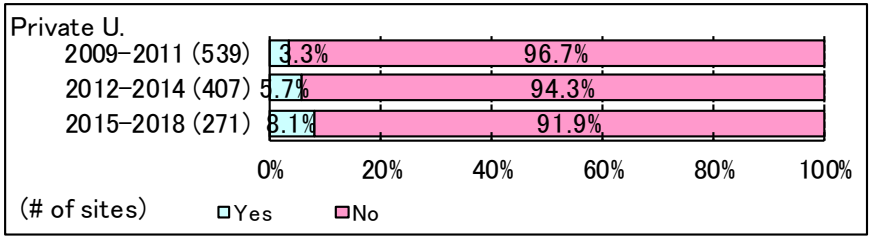


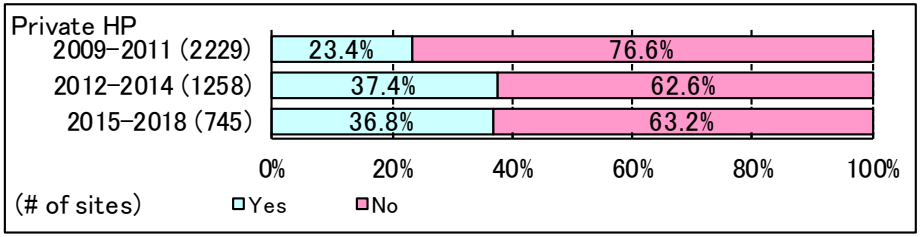
It should be noted that data from studies that take a long time to complete the study (studies not completed at the time of the 2019 survey) are not included.

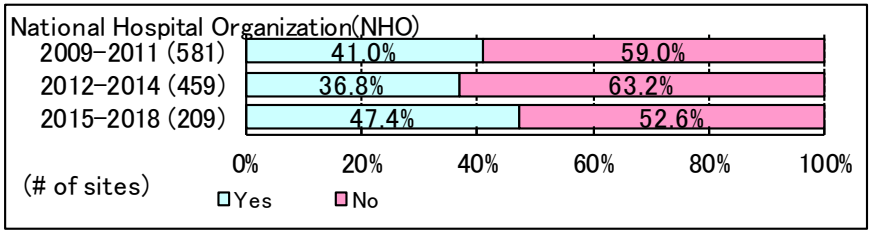
III-1-7-3 Central IRB [Sub analysis]

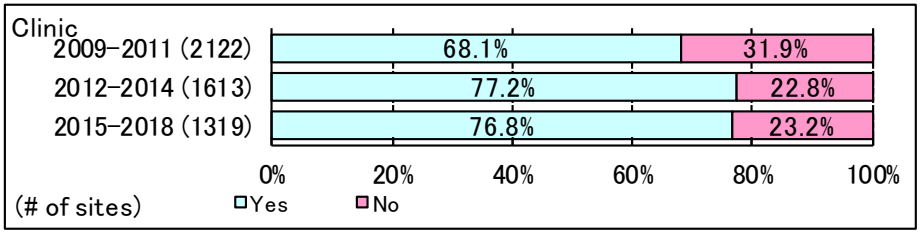


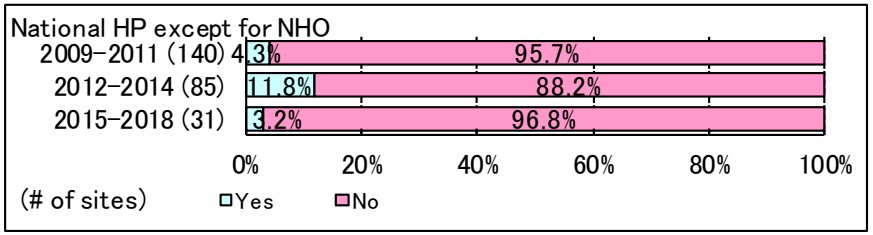








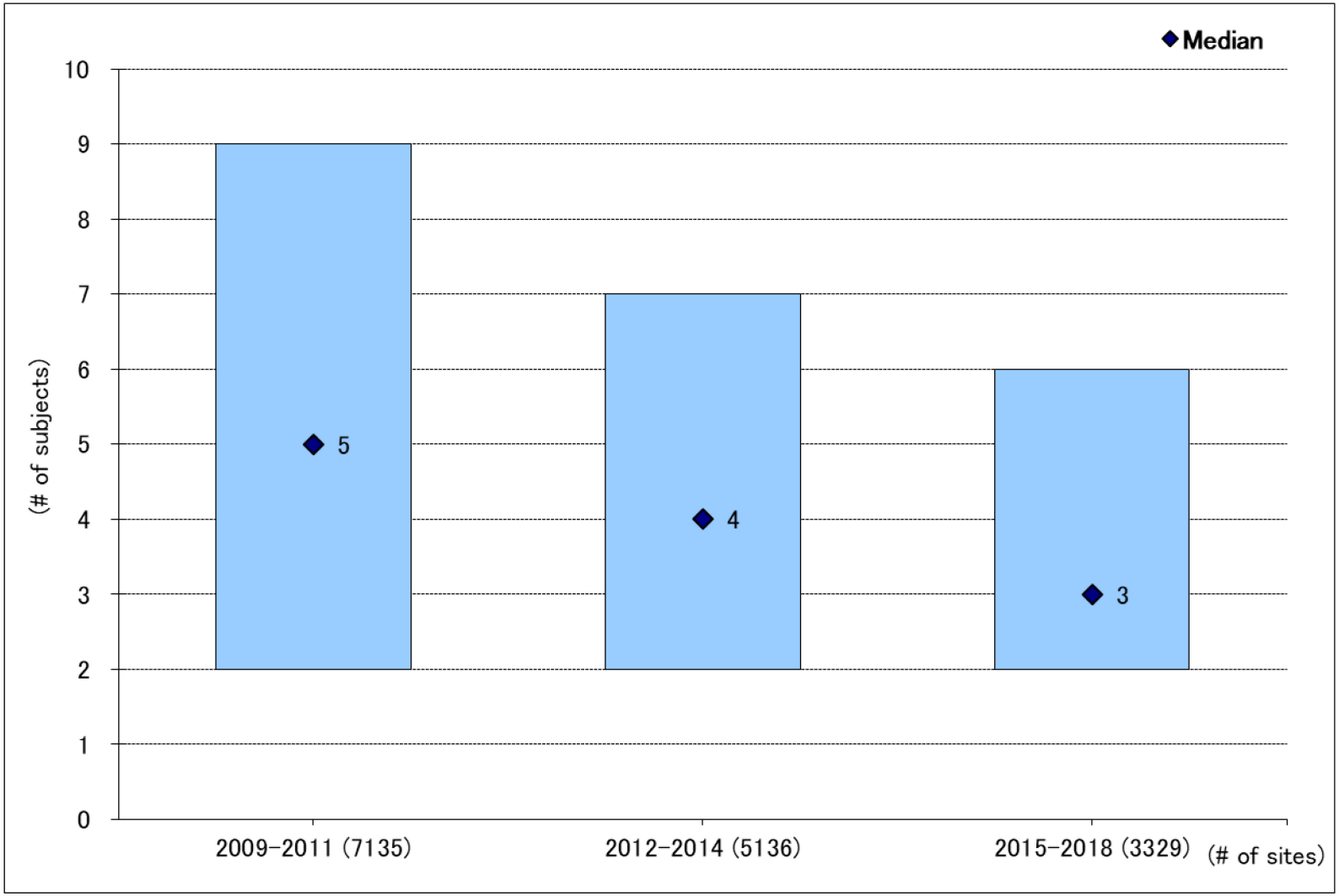




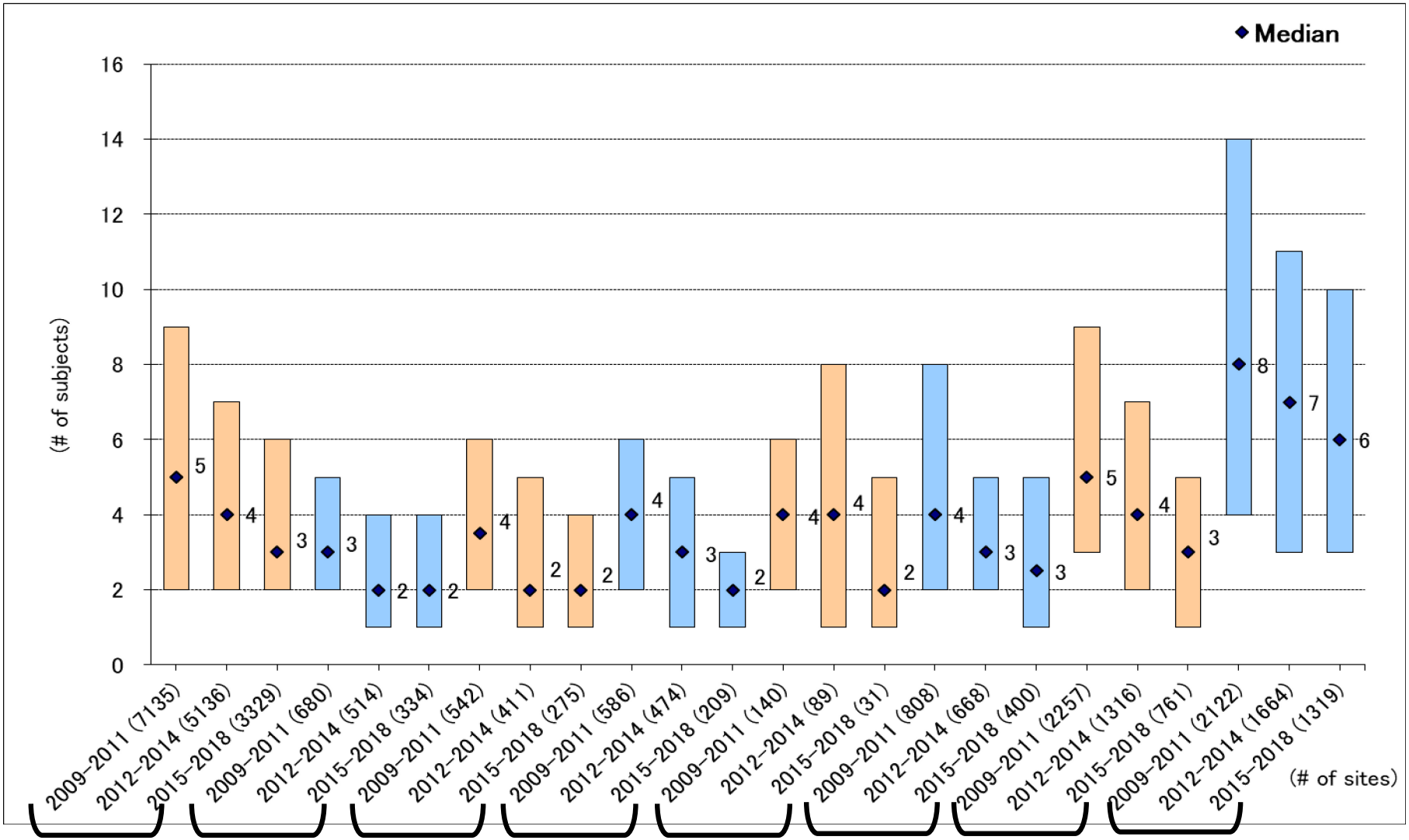
It should be noted that data from studies that take a long time to complete the study (studies not completed at the time of the 2019 survey) are not included.

III-2 Enrollment

III-2-1 Number of Enrolled Subjects per Site



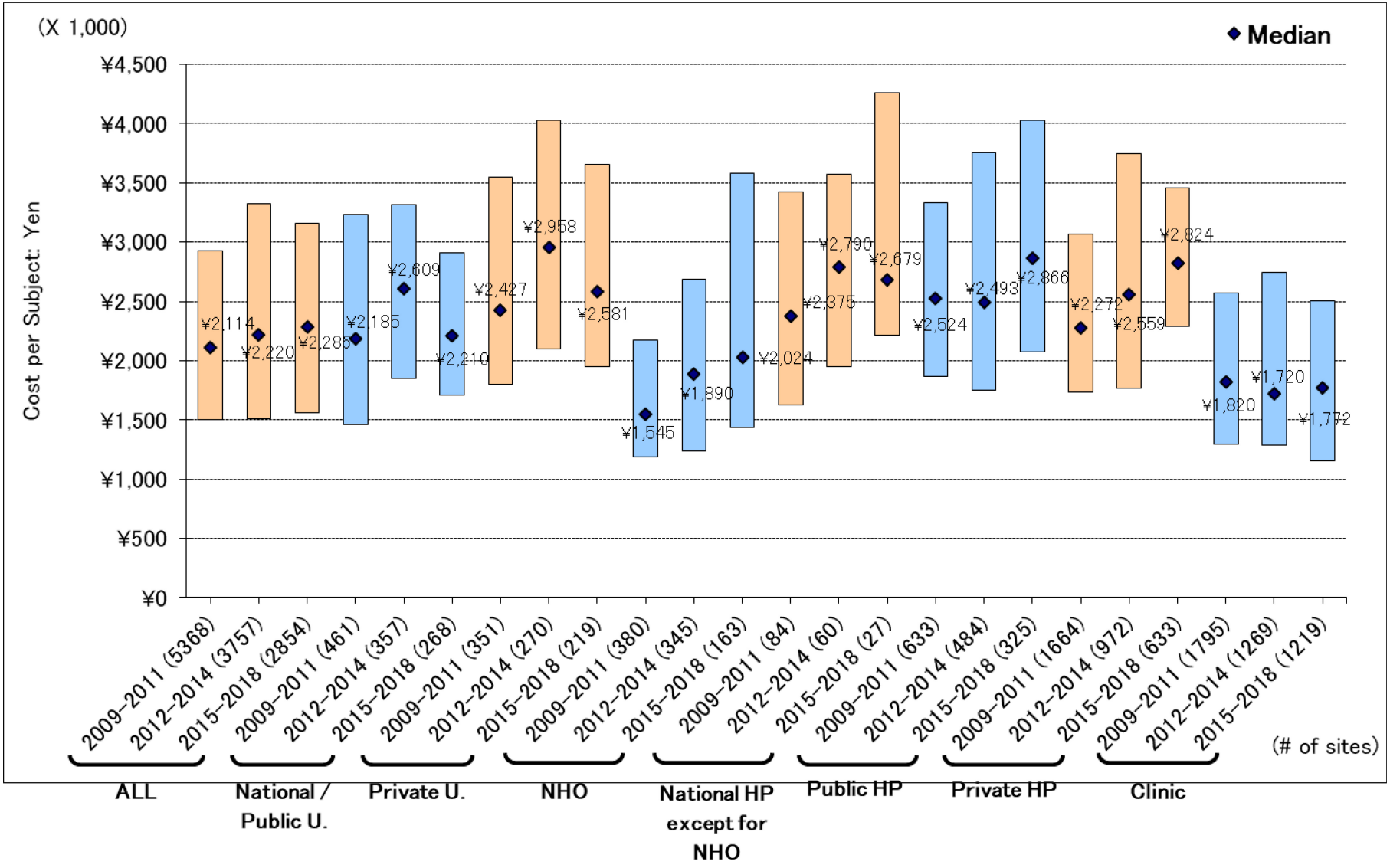
III-2-2 Number of Enrolled Subjects per Site by Type of Site



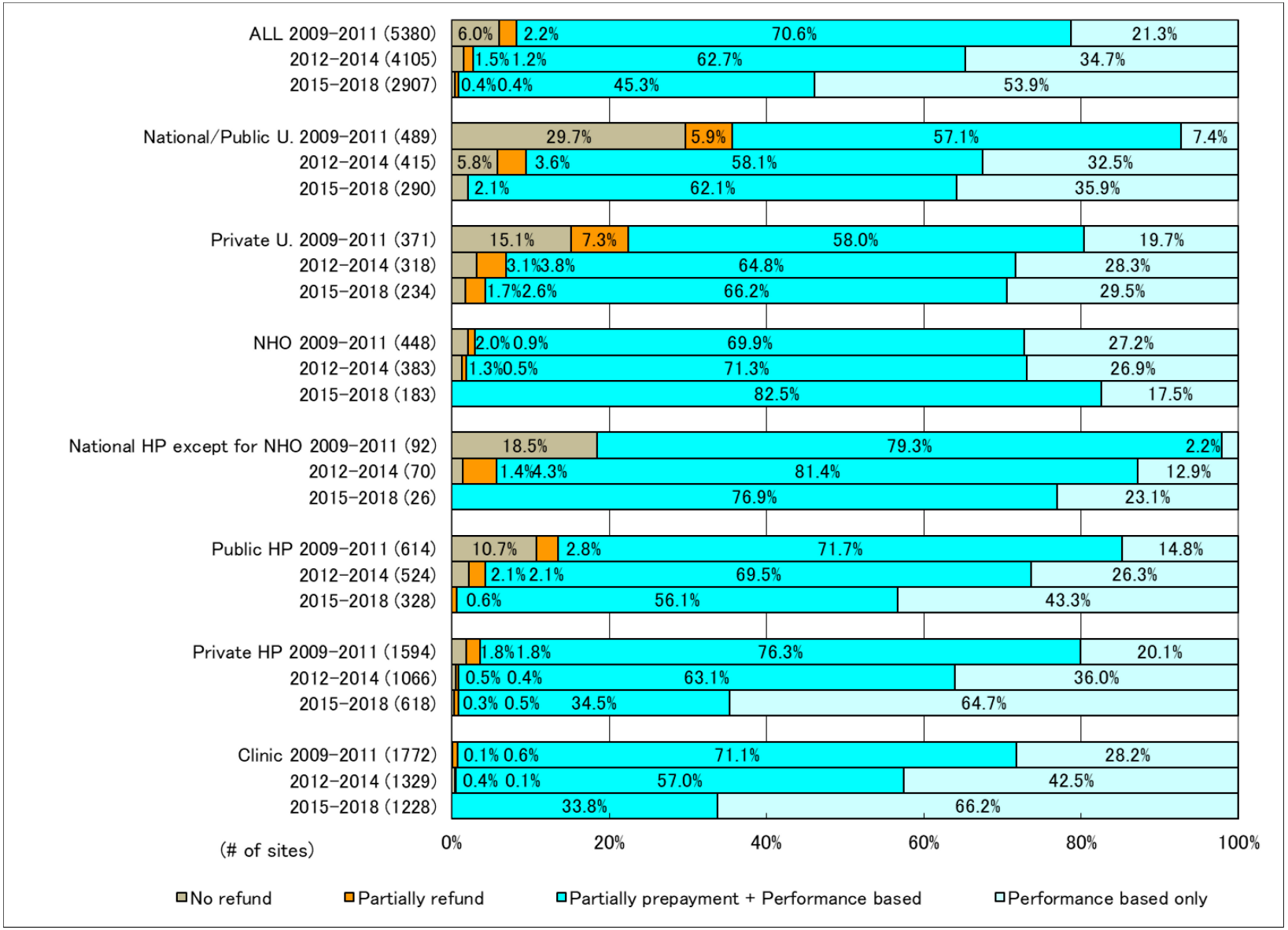
III-3 Cost

III-3-1 Cost per Enrolled Subject

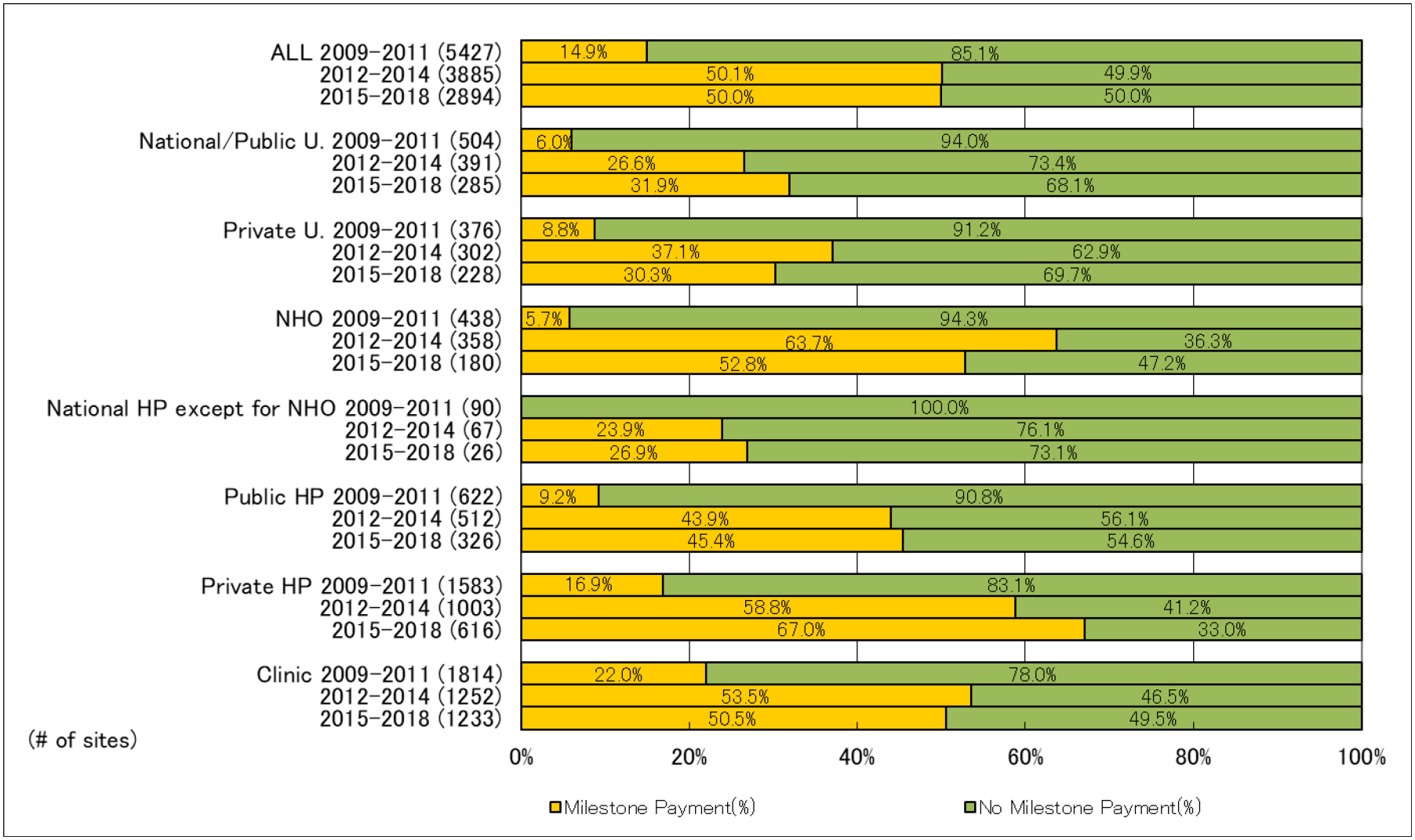
III-3-2 Cost per Enrolled Subject by Type of Site



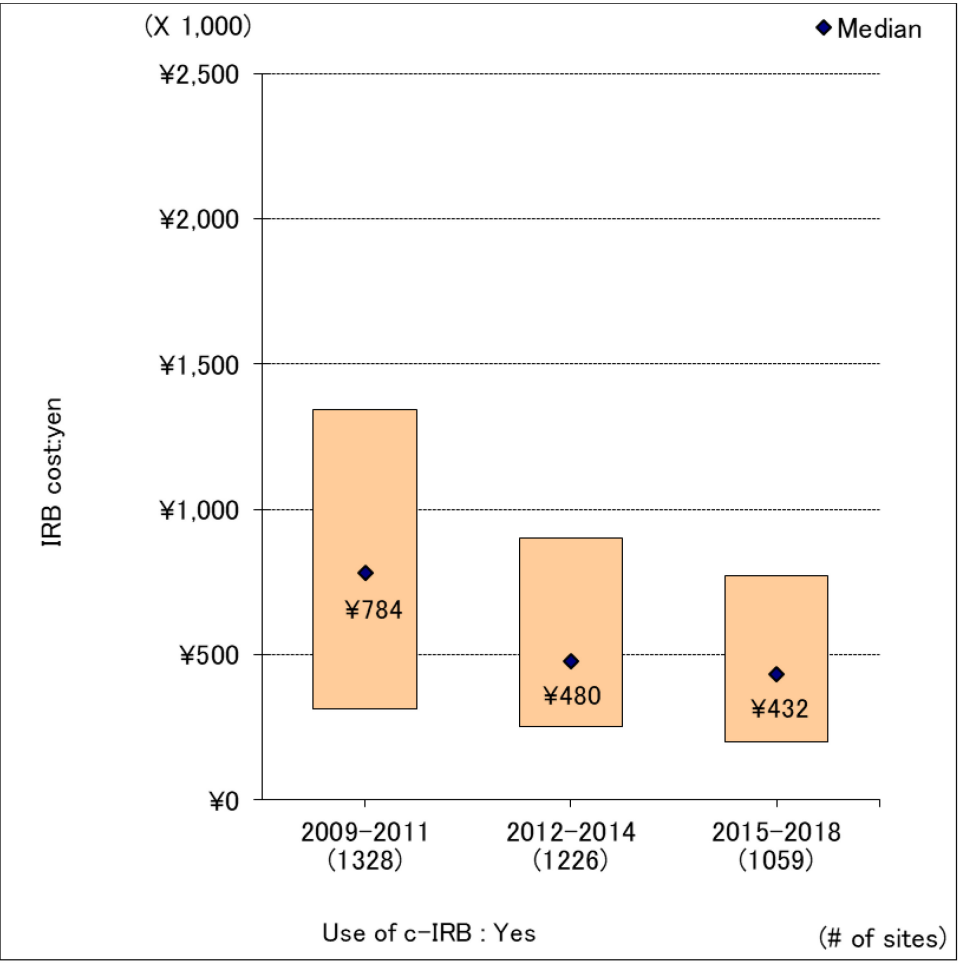
III-3-4 Methods of Payment by Type of Site

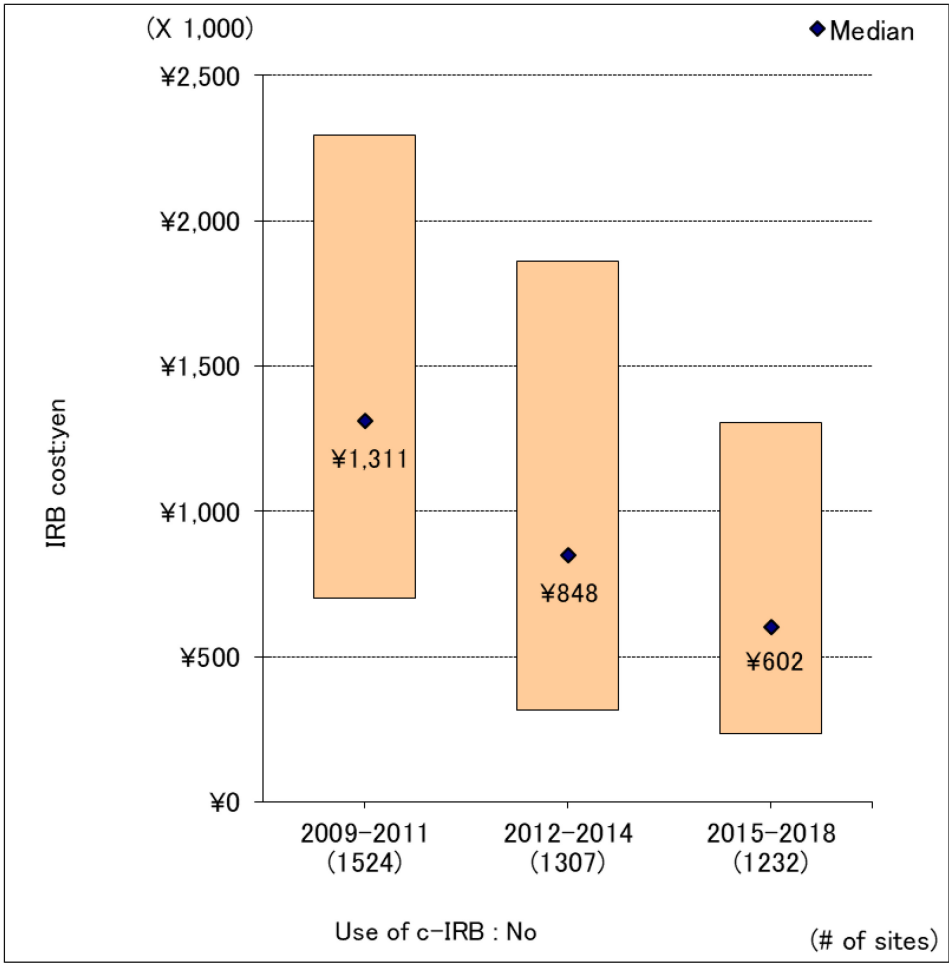


III-3-5 Implementation of Milestone Payment in Site by Type of Site



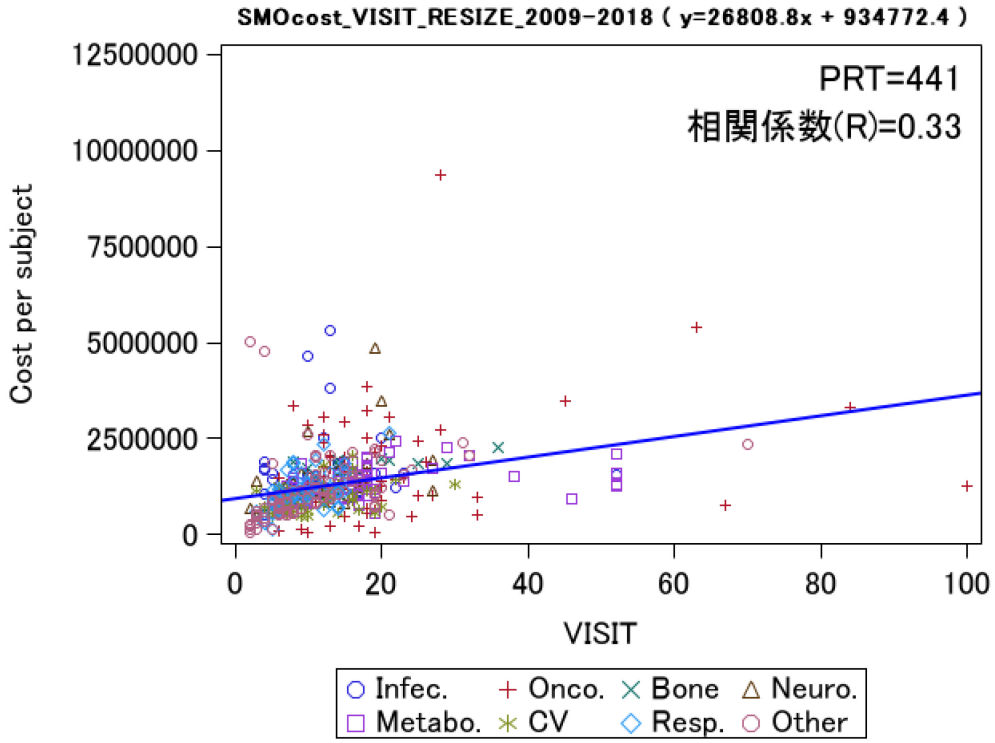
III-3-13-1 IRB Cost: [Sub analysis] Utilization of c-IRB

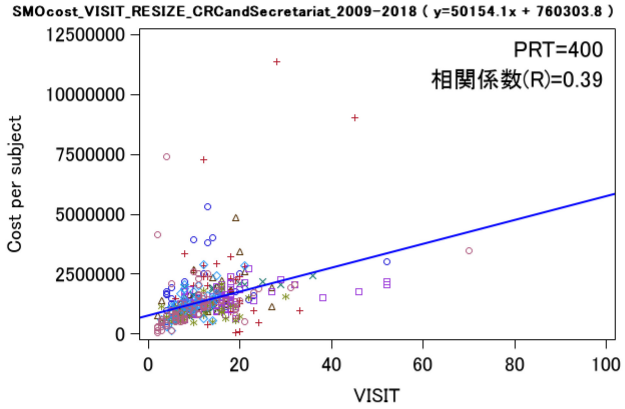


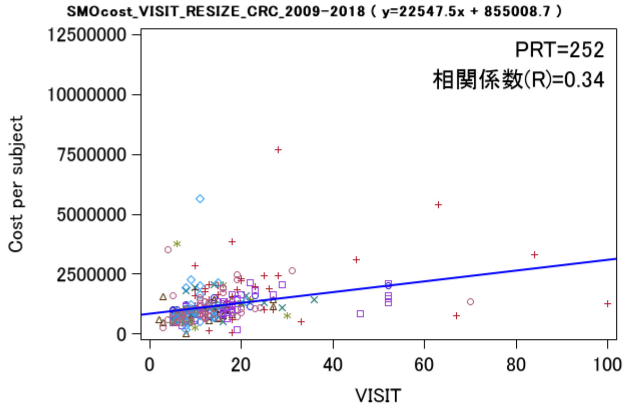


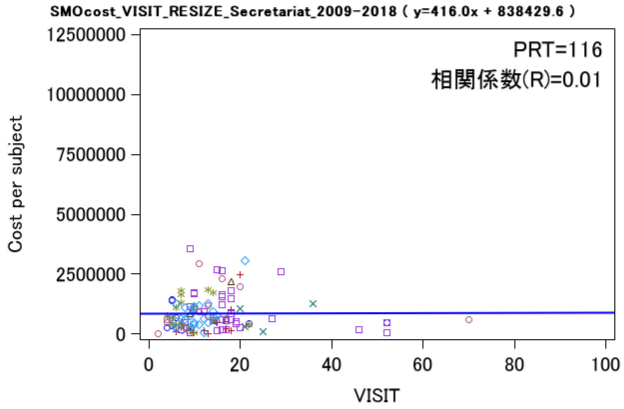
- It should be noted that the data of the long-term study, which has not been completed, are not included in the recent year segment.
- Due to the inappropriate error label on IRB costs in the previous (prior2017) survey form entry check, some of the IRB cost data may not have been properly collected in the before 2017 survey.

III-7-1-5 Linear Regression for SMO Cost per Enrolled Subject and Visit Limited in Protocols Started in 2009 - 2018

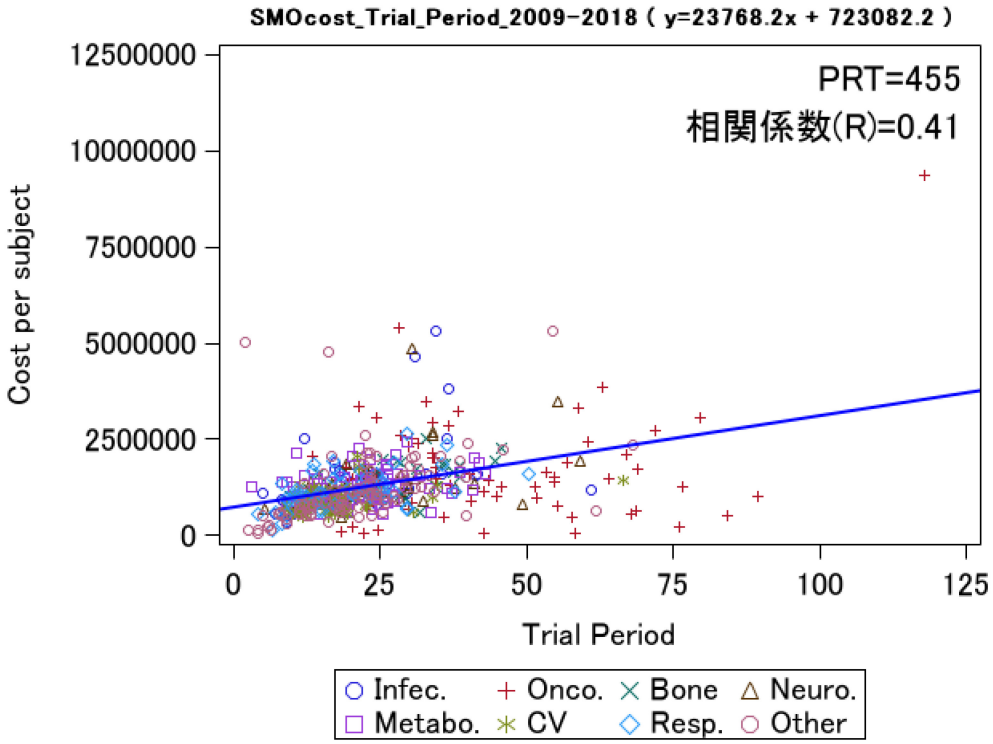


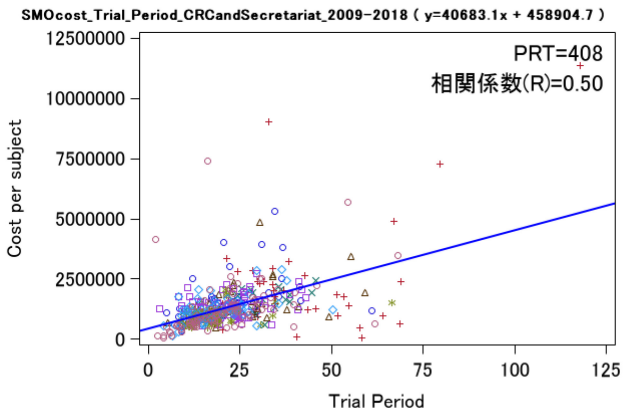


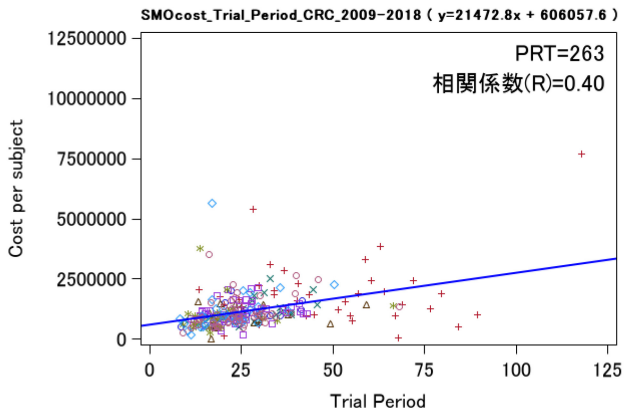


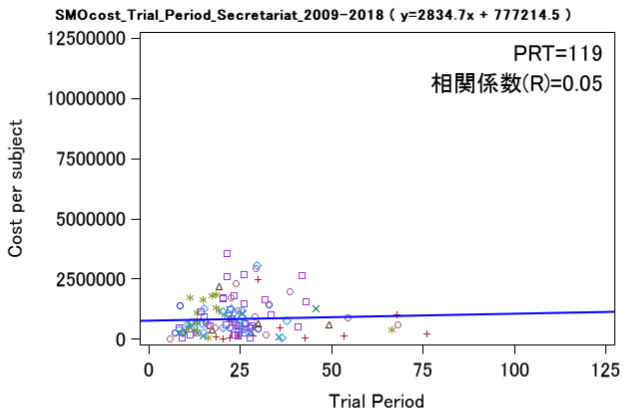


III-7-2-1 Linear Regression for SMO Cost per Enrolled Subject and Months of Trial Period Limited in Protocols Started in 2009 - 2018

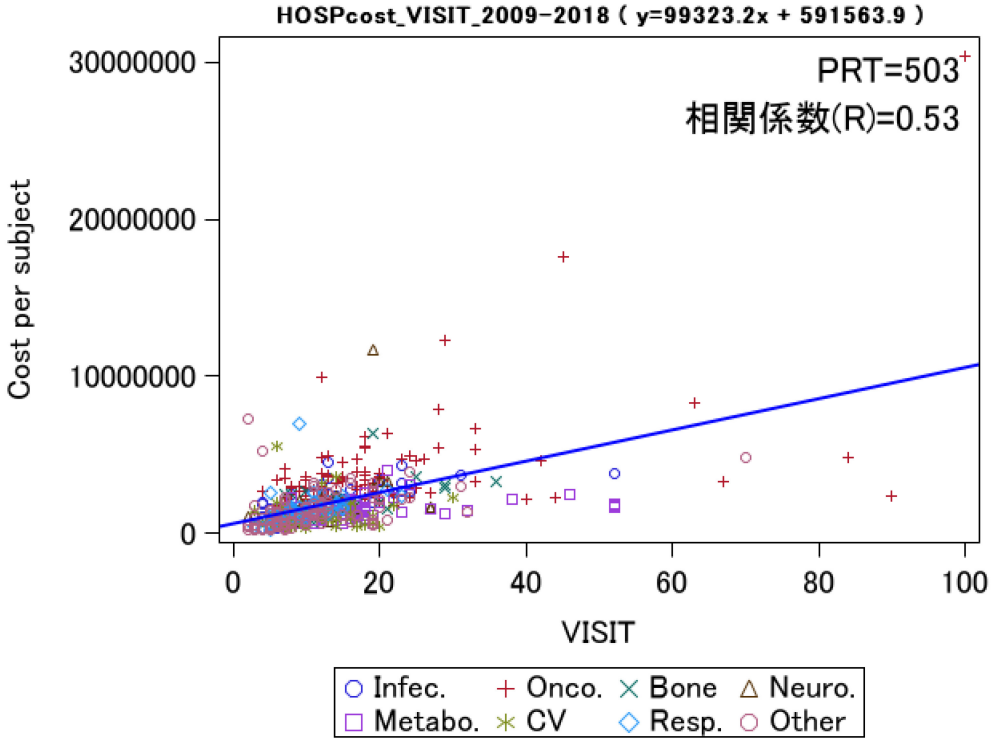


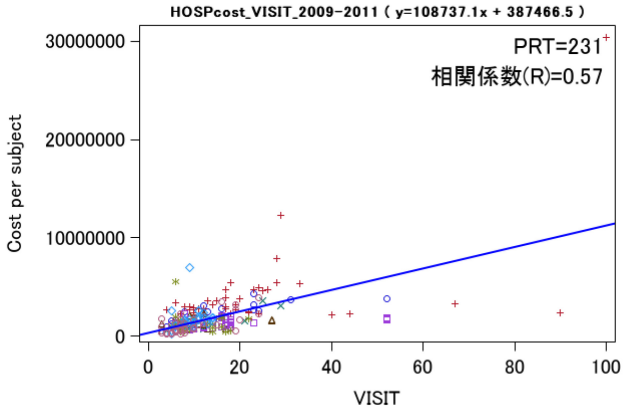


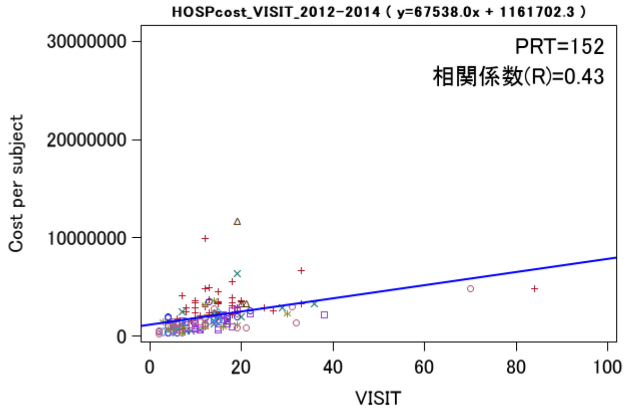


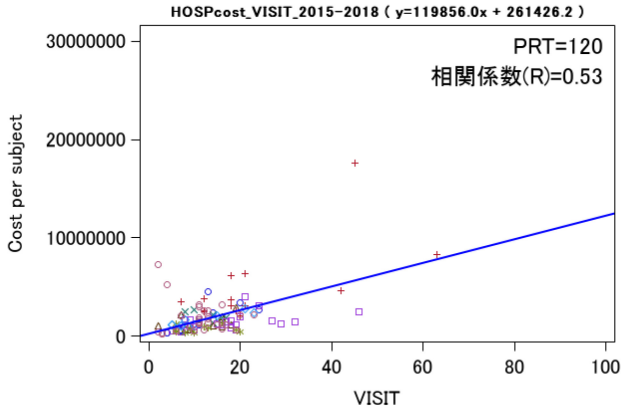


III-7-3-1 Linear Regression for Site Cost per Enrolled Subject and Visit

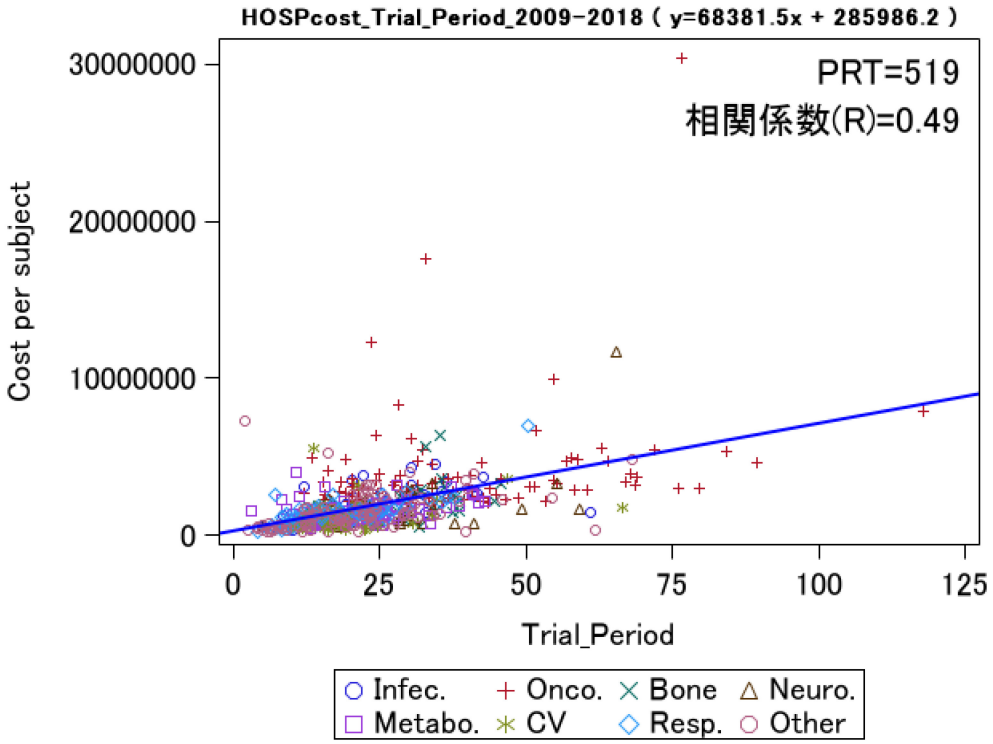


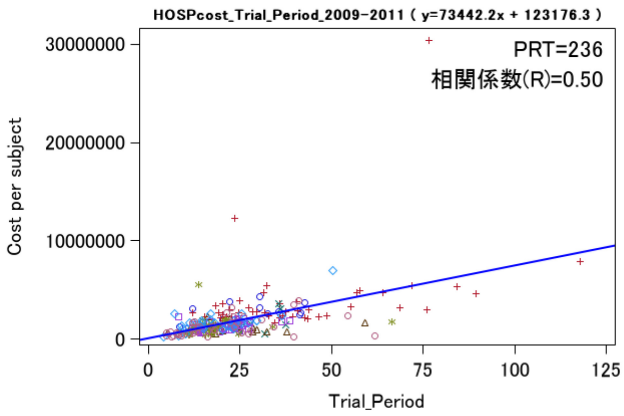


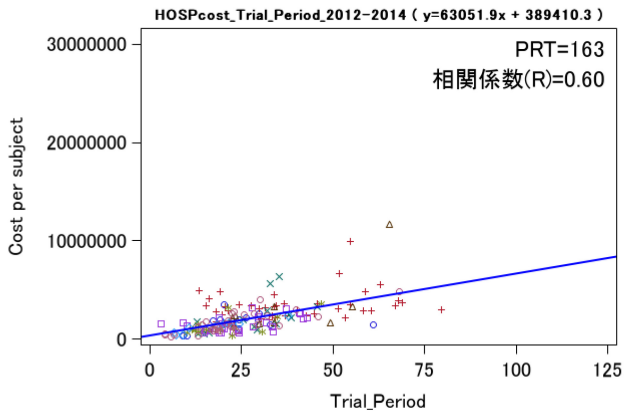


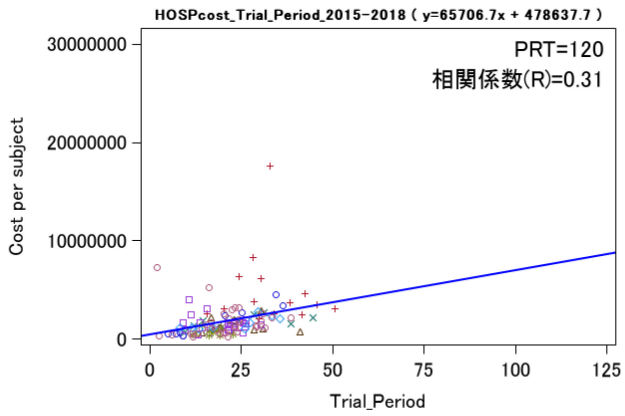


III-7-4-1 Linear Regression for Site Cost per Enrolled Subject and Months of Trial Period



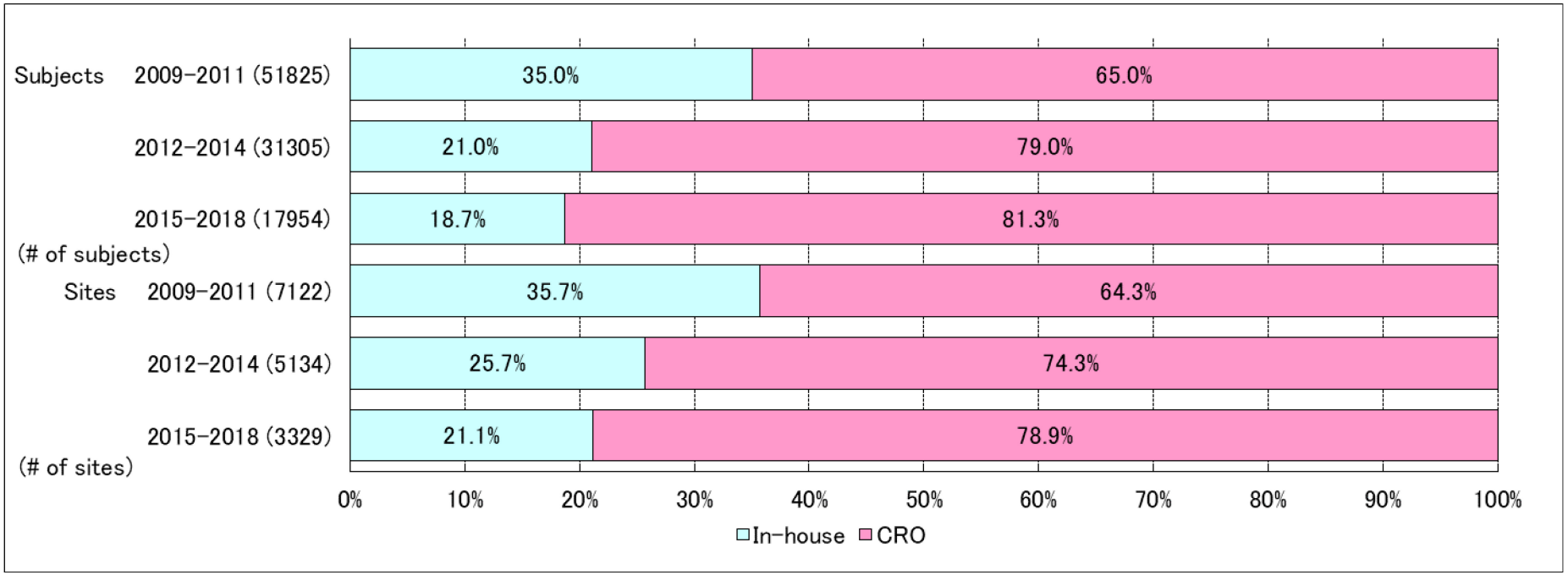




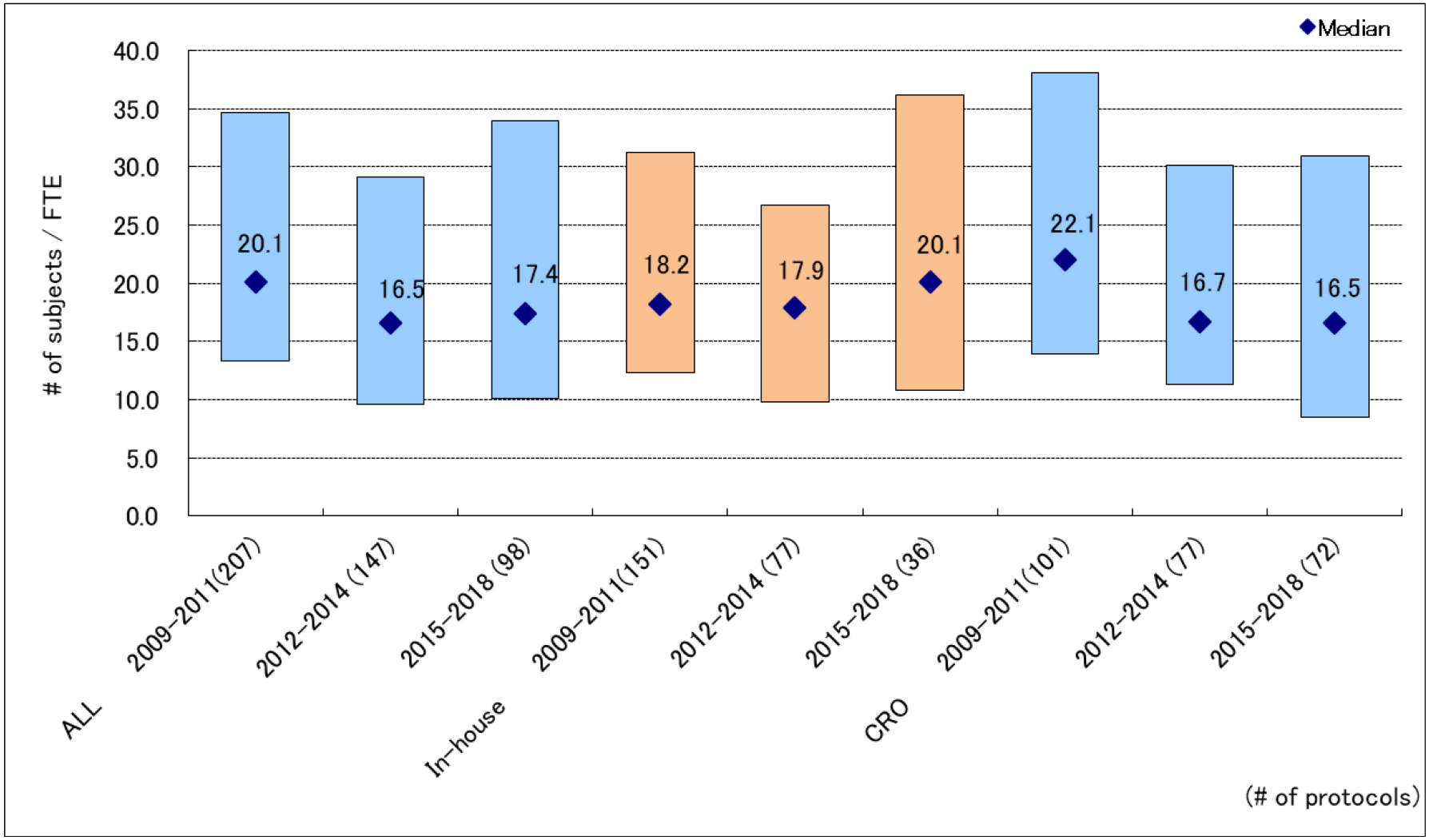


III-4 Monitoring Performance

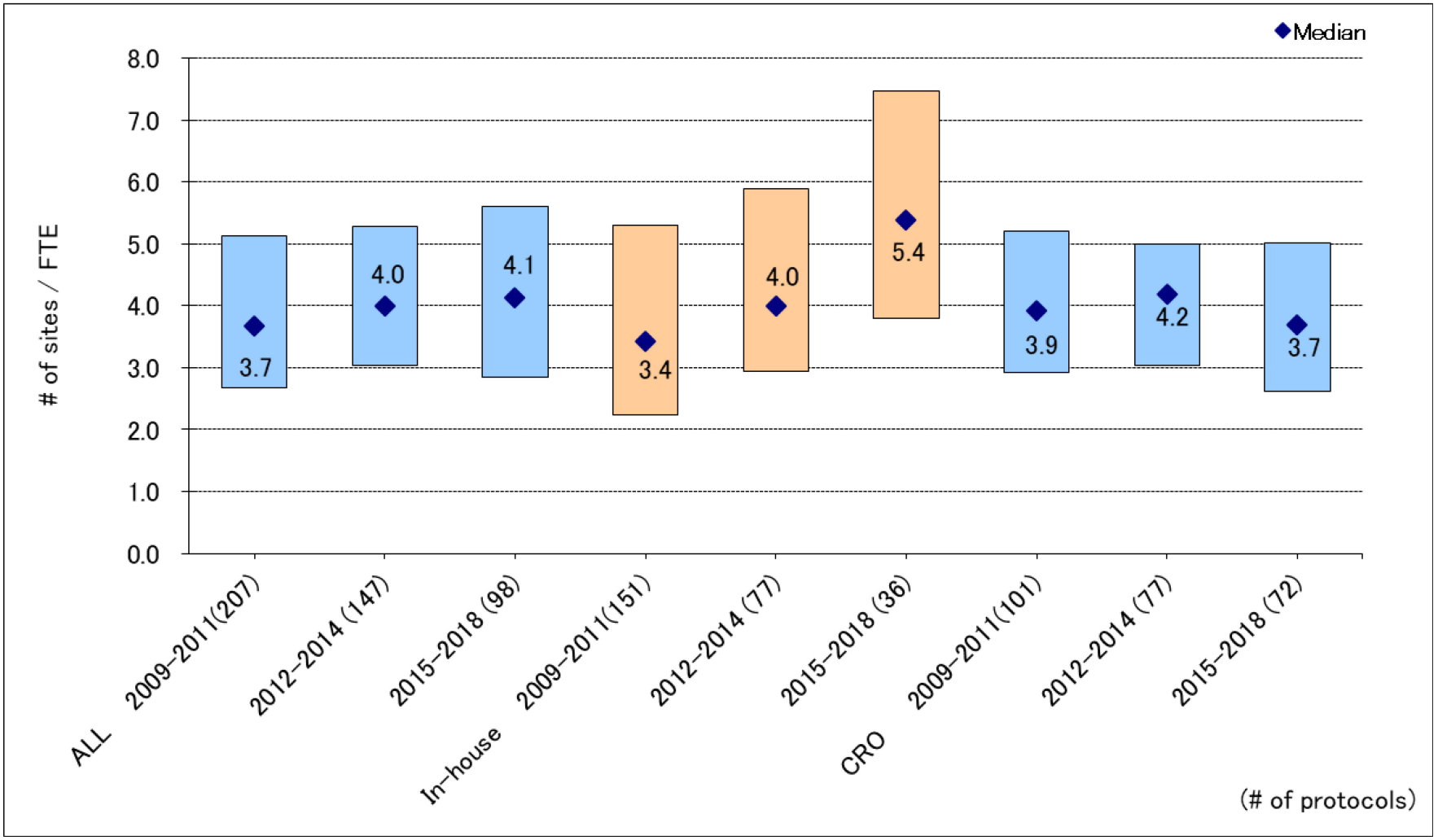
III-4-1 Proportion the Number of Enrolled Subjects and Sites by Affiliation



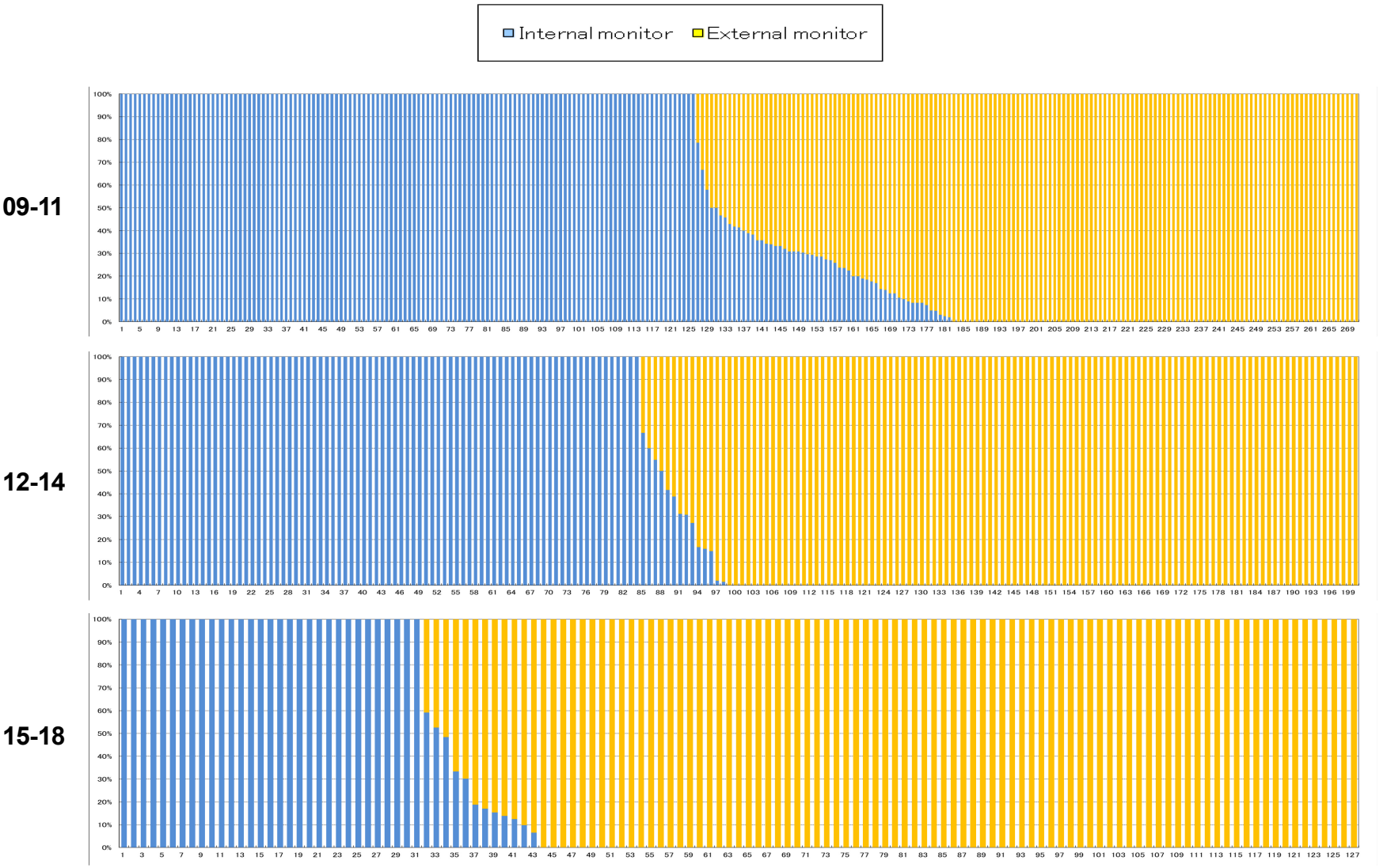
III-4-2 Number of Enrolled Subjects per Monitoring (FTE) by Affiliation



III-4-3 Number of Sites per Monitoring (FTE) by Affiliation

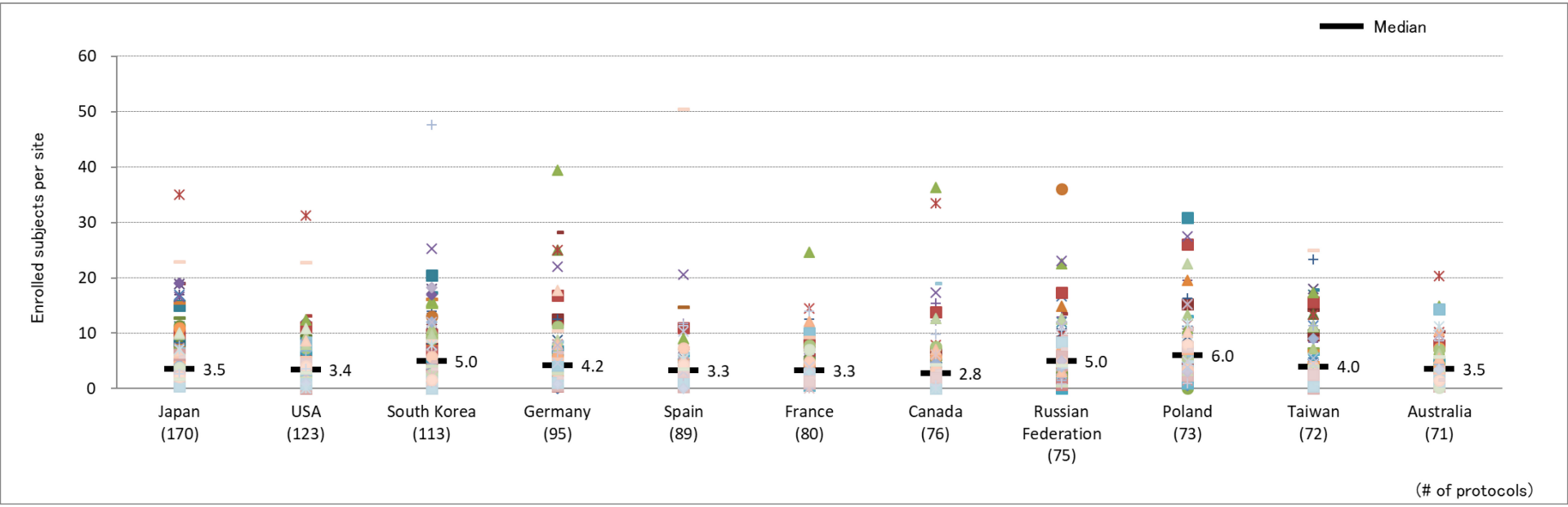


III-4-6-2 Proportion of CRA Outsourcing in Total Sites

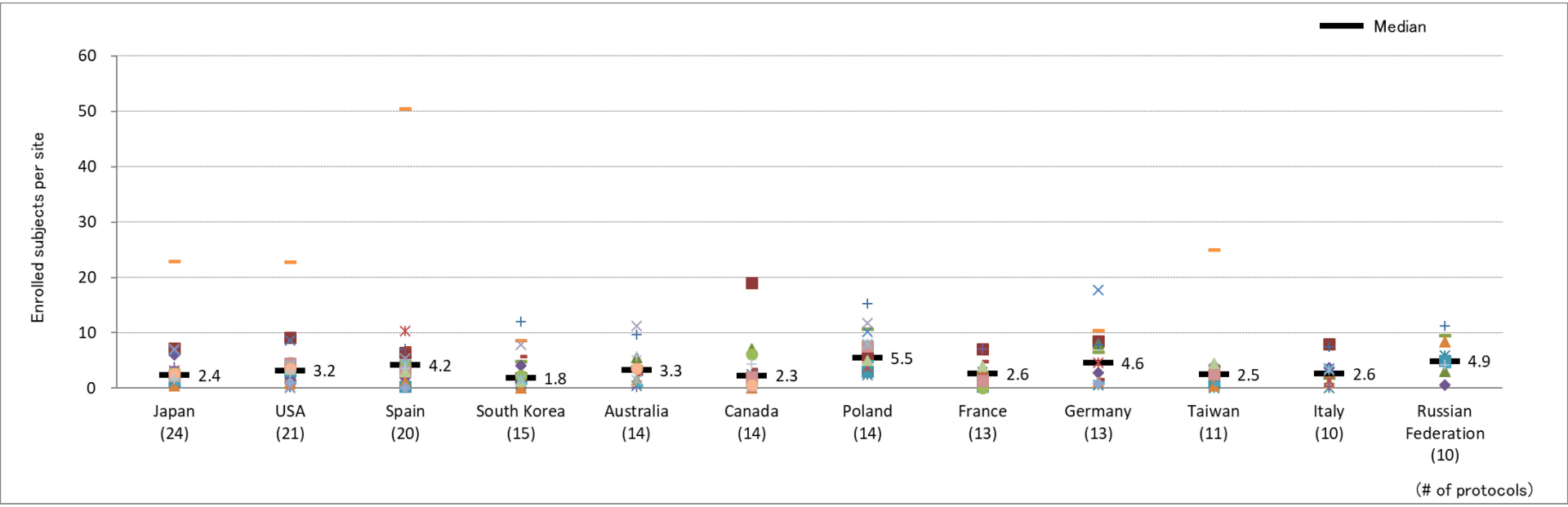


III-5 Global

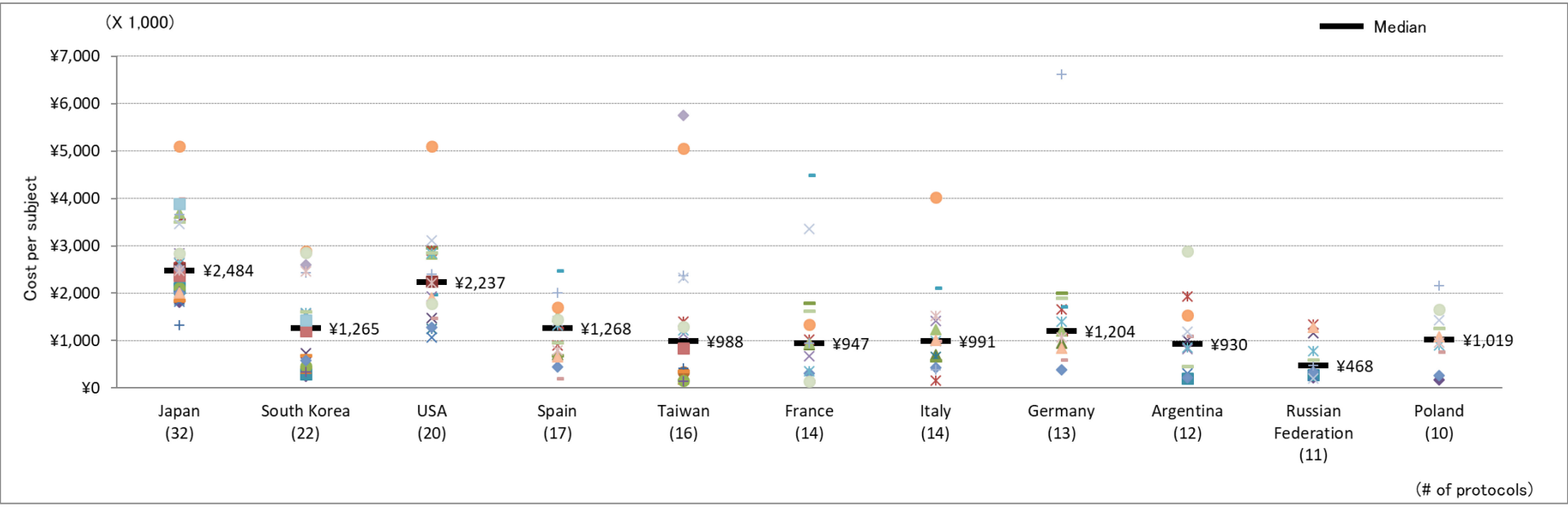
III-5-3-1 Number of Enrolled Subjects per Site by Most Frequent Top 10 Countries in Global Studies Scatter Plot



III-5-3-4 Number of Enrolled Subjects per Site by Most Frequent Top 10 Countries in Global Studies Scatter Plot(15-18)



III-5-5-2 Cost per Enrolled Subject by Most Frequent Top 10 Countries in Global Studies Scatter Plot(09-18)



Ⅳ. Summary

III-1 Background

- ✓ Collected Data: 133 studies from 19 companies (FY2017: 135 studies from 19 companies)
- ✓ Monitoring method: The other methods than '100% SDV' increased. (Sampling SDV, RBM etc.)
- ✓ c-IRB: Slightly increased, eCOA: Increased

III-2 Enrollment

- ✓ The number of patients per site (median) was 3 patients: decreased [continuing issue]

III-3 Cost

- ✓ "No refund (no refund even if contracted enrollment are not achieved)" : Total data = 0.4 %, University hospitals = approx. 2 % [Issue resolved]
- ✓ Introduction rate of Milestone payment : Low Progress
- ✓ IRB Cost: Decreasing trend, lower cost due to c-IRB usage

Correlation analysis

- ✓ There is a weak or moderate positive correlation between 'the duration of the study / the number of patients visit' and 'payment for medical institutions and SMO'.
- ✓ Variance in distribution (outlier) is identified. No correlation in 'secretariat support only by SMO'.

III-4 Monitoring Performance

- ✓ CRO monitor's proportion of number of site and number of subjects treated: Increased
- ✓ Number of sites per monitor 1FTE: 4.1 sites [continuing issue]
- ✓ "Number of in-house monitors" and "Number of CRO monitors" percentages: The proportion of CRO monitors in charge increased

III-5 Global

- ✓ The number of subjects treated per site in global studies is not high [continuing issue]
- ✓ Cost per subject in Japan (past 10 years): almost equivalent to that in the U.S.

Secondary use of this result

This report has been prepared by R&D Head Club member companies by bringing together data in order to understand current clinical trial environment in Japan. Please note the following instruction when you use this material for the secondary use.

Preliminary actions for secondary use

- Please let the R&D Head Club secretariat know below contents by contact form in the R&D Head Club home page（https://rdhead-club.com/contact/）
  - User (name, affiliation, opportunity to use)
  - Where used (applicable pages and purpose of use*）

Ex.）
Name：Ichiro Suzuki
Affiliation ：ABC Pharma K.K.
Purpose for ues：Oral presentation in OOO annual meeting, MMM/DD/YYYY
Data of use：Slide #18
Introduction on current clinical cost in Japan

How to describe Source Data

- Source：R&D Head Club Clinical Trial Performance Survey 2019

*：It is to confirm that there is no discrepancy with the perception of R&D Head Club, and does not restrict secondary use.