Final report of the Committee on Gynecologic Oncology, the Japan Society of Obstetrics and Gynecology, on a fact-finding questionnaire on the status of treatment of hereditary breast and ovarian cancer syndrome in Japan

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Invited Manuscript

Final report of the Committee on Gynecologic Oncology, the Japan Society of Obstetrics and Gynecology on a fact-finding questionnaire on the status of treatment of hereditary breast and ovarian cancer syndrome in Japan

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Objectives and outline of the questionnaire

Hereditary breast and ovarian cancer syndrome (HBOC) is a hereditary tumor that can be definitively diagnosed by detection of germline mutation of the *BRCA1* or *BRCA2* gene. In other countries, the National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology suggest risk-reducing surgery (risk-reducing mastectomy or risk-reducing salpingo-oophorectomy (RRSO)) as an option for cancer prevention in cases that have been definitively diagnosed with HBOC[1)]. With ovarian cancer in particular, preclinical salpingo-oophorectomy is considered to be the most effective preventive method, since a method of examination that is effective for early detection has yet to be established. This procedure is therefore recommended for women of appropriate age, such as those who have finished childbirth. In Japan, “Development of communication program regarding genetic counseling and testing for breast and ovarian cancer patients” (Research Grant of Ministry of Education, Culture, Sports, Science and Technology. 2012.4.1-2015.3.31) group carried out a fact-finding survey of HBOC among specialists in gynecologic oncology by administering the report as “a survey of the practice patterns of gynecologic oncologists dealing with hereditary cancer patients in Japan”[2)]. The results of this study showed that a cooperative response to HBOC by obstetrician-gynecologists, clinical geneticists, and certified genetic counsellors was an urgent issue. In addition, it was found that 9.5% of facilities (n=306) are able to carry out RRSO, some of these facilities carry out more than 50 procedures a year, and 25% of these facilities carry out this procedure as regular medical care. While the survey carried out by this research group was aimed at specialists in gynecologic oncology, it was anonymous, and the results showed that, with insufficient response to the needs and with no treatment systems in place in Japan, there are concerns that inappropriate medical care may be given to HBOC patients. Given this situation, the HBOC Public Awareness and Management Sub-committee of the Tumor Committee, Japan Society of Obstetrics and Gynecology, carried out a fact-finding survey of HBOC medical treatment in Japan with the aim of constructing a system for appropriate examinations. Specifically, a questionnaire on HBOC medical care was given to the core facilities of the Japan Society of Obstetrics and

Gynecology, the results of which are presented here. In addition, views regarding RRSO for persons with mutations of the *BRCA1* or *BRCA2* gene based on an analysis of the results are shown.

Methods

The present questionnaire was approved by the Clinical Research Review Board of the Japan Society of Obstetrics and Gynecology. The directors of medical specialty teaching facilities were notified of the questionnaire by post, with the request for one respondent per facility. The questionnaire was administered online from the homepage of the Japan Society of Obstetrics and Gynecology. The response period was from 8 July 2014 to 31 March 2015.

The questionnaire items were as follows.

1. Characteristics of the facility (Questions 1–8)
2. Treatment system for hereditary diseases (Questions 9–12)
3. Response to women with a high possibility of HBOC on the basis of prior history or family history (Questions 13–15)
4. Treatment system related to HBOC genetic testing (Questions 16–21)
5. HBOC counselling system (Questions 22–26)
6. System for surveillance of ovarian cancer in relation to HBOC (Questions 27–35)
7. Present system and future plans regarding risk-reducing salpingo-oophorectomy (RRSO) for HBOC patients (Questions 36–44)
8. The primary specialty of clinical geneticists at facilities that have clinical geneticists who have been certified by the Japan Society of Human Genetics and the Japanese Society for Genetic Counseling (Question 45)

Results

A total of 341 facilities (50.3%) responded of the 678 that were requested to compete the questionnaire. The responses are shown in the respective tables. For questions with free responses, similar answers have been grouped together, and the written answers have been freely translated.

Views regarding RRSO for women with mutations of *BRCA1* and *BRCA2*

Women who have mutations of the *BRCA1* or *BRCA2* genes (*BRCA1/2*), which are both genes that cause HBOC, have a lifelong, high risk of breast and ovarian cancers. The risk of ovarian cancer is reported to be 39–46% in women with mutation of the *BRCA1* gene and 12–27% in women with mutation of the *BRCA2* gene. The Japan Society of Obstetrics and Gynecology believes that it is essential that the risk of ovarian and/or breast cancer for individuals with *BRCA1/2* gene mutation is understood, and that appropriate measures are taken when obstetrics and gynecology departments make diagnoses.

Risk assessment, genetic counseling, genetic testing, interpretation of test results, and HBOC surveillance (monitoring) are all necessary steps in the treatment of hereditary tumors. General obstetrician-gynecologists may be assumed to be the main persons involved in risk assessment and HBOC management, but when a patient is being treated for HBOC, this should be done in collaboration with an expert in clinical genetics who is fully conversant with hereditary tumors.

Studies have shown that 10–15% of patients with ovarian cancer, fallopian tube cancer, and primary peritoneal cancer have *BRCA1/2* gene mutation. On this basis, risk assessment should be carried out with reference to the genetic evaluation standards of the NCCN Guidelines, and if the criteria are met, consideration should be given to the provision of genetic counseling and to presentation of the significance and possibilities raised by *BRCA1/2* testing.

The options available to women with *BRCA1/2* gene mutation for prevention of ovarian cancer are RRSO and chemoprevention with oral contraceptives as primary prevention (to prevent cancer), and strict surveillance, etc. as secondary prevention (for early detection and early treatment of cancer). RRSO is the most reliable prevention of ovarian cancer for women with *BRCA1/2* gene mutation at this point. In addition, RRSO not only reduces the risk of ovarian cancer onset, it has also been reported to be effective in reducing the initial diagnosis of breast cancer and prolonging overall survival. For this reason, RRSO is recommended in the guidelines of other countries.

RRSO involves the ethical issue of removing internal organs that are likely to be (phenotypically) healthy. In addition, cooperation with a department that can provide pathological diagnosis of occult cancer or the presence of precancerous

lesions in the epithelium of the fallopian tubes is needed. The Japan Society of Obstetrics and Gynecology therefore considers that the following conditions must be met before RRSO is carried out.

System prior to carrying out RRSO

1. HBOC genetic counseling must be carried out at a facility that has specialist staff. In the cases of a positive test result for *BRCA1/2* gene mutation, genetic counseling is carried out again, and the client's autonomy and wishes concerning RRSO must be respected.

2. Sufficient counseling and information provision must be given with regard to the efficacy and adverse effects of RRSO, including whether the client wishes to have a baby, the cancer risk, and the extent to which RRSO can prevent breast cancer and ovarian cancer, as well as possible future health effects such as ovarian deficiency symptoms, osteoporosis, and cardiovascular disease, and their countermeasures.

Candidates for RRSO

3. As a general rule, candidates for RRSO are women with no ovarian cancer who are shown to have a pathological *BRCA1/2* gene mutation (or a mutation that can be determined pathologically and clinically).

4. The timing of RRSO should depend on the individual, but carrying out the procedure after the client has finished childbirth and reached an age of 35–40 years, or at the earliest age when someone in the client's family lineage has been diagnosed with ovarian cancer, is generally considered desirable.

Facilities carrying out RRSO

5. Facilities carrying out RRSO must be reviewed by an ethics committee established within the hospital.

6. Facilities carrying out RRSO must have a system in place for HBOC genetic counseling.

7. To carry out RRSO, a facility must have a full-time specialist of the Japan Society of Gynecologic Oncology or be able to create a system of collaboration with a specialist.

8. There must be a system of cooperation in place with pathologists who have a full understanding of the handling of biopsy samples.

9. Because RRSO results in surgical menopause, there are concerns over menopausal symptoms, such as ovarian deficiency symptoms, and negative effects on the lipid profile and bone metabolism. For this reason, follow-up by an obstetrics and gynecology specialist who is well versed in women's healthcare is needed. Hormone replacement therapy is useful for health promotion following RRSO for women with no history of breast cancer, and it is reported to have little effect on the risk of breast cancer over the short term.

Management of RRSO

10. Although combined hysterectomy is not considered necessary in association with RRSO, it has advantages when hormone therapy for breast cancer or hormone replacement therapy for ovarian deficiency symptoms is carried out. For this reason, the advantages and disadvantages of combined hysterectomy associated with RRSO should be fully explained prior to surgery.

11. Discovery of occult cancer when RRSO is carried out has been reported. The development of tumors in the neighborhood of the fimbria of the fallopian tubes has attracted attention in ovarian cancer, so that completely sectioned specimens of biopsy samples must be prepared. It is therefore essential to create a system of cooperation with the diagnostic pathology department.

12. It must be explained that even after RRSO, there is still a 2–5% probability of peritoneal cancer.

13. RRSO is recommended as primary prevention for ovarian cancer in the various guidelines. At the same time, there is no reliable method of ovarian cancer screening for women with a *BRCA1/2* gene mutation who have opted not to have RRSO. Transvaginal ultrasound and CA125 measurement at least once every six months is considered to be a realistic secondary prevention method in actual clinical settings. However, this must be carried out with the understanding that, even though the previous examination gave a negative result, there is still a risk of so-called interval cancer, which means that subjective symptoms may appear and cancer may be discovered before the time of the next examination.

14. Regardless of whether RRSO is carried out, the risk of breast cancer, pancreatic cancer, or prostate cancer is increased in individuals with *BRCA1/2*

gene mutation. Surveillance in cooperation with the relevant departments is therefore needed even after RRSO is carried out.

References

1) NCCN clinical practice guidelines in oncology, genetic/familial high-risk assessment: breast and ovarian, version 1, 2017
2) Tanabe N, Shikama A, Bando H, Satoh T, Shimizu C. A survey of the practice patterns of gynecologic oncologists dealing with hereditary cancer patients in Japan. Fam Cancer 2014; **13(3):** 489–98.

ABSTRACT

Hereditary breast and ovarian cancer syndrome (HBOC) is a hereditary tumor that can be definitively diagnosed by detection of germline mutation of the *BRCA1* or *BRCA2* gene.

The directors of medical specialty teaching facilities were notified of the questionnaire by post, with the request for one respondent per facility. The response period was from 8 July 2014 to 31 March 2015.

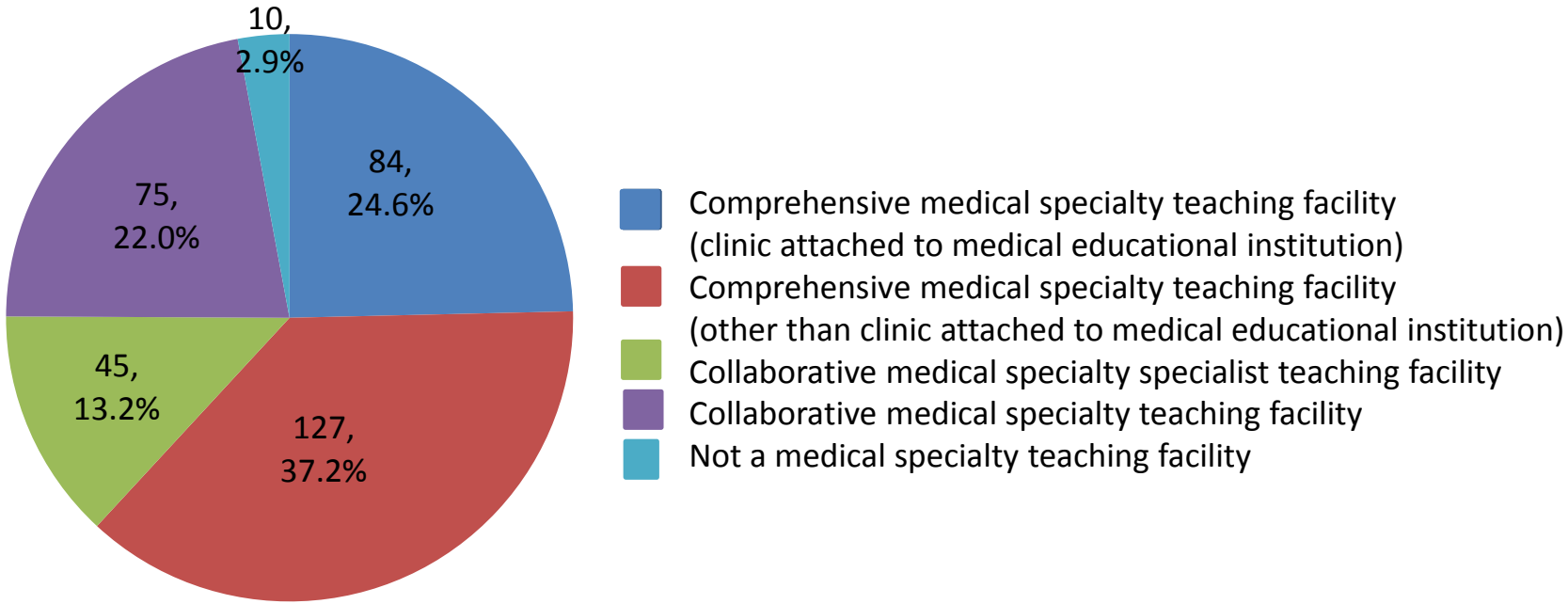
A total of 341 facilities (50.3%) responded of the 678 that were requested to compete the questionnaire. The responses are shown in the respective tables. For questions with free responses, similar answers have been grouped together, and the written answers have been freely translated.

Based on these results the Japan Society of Obstetrics and Gynecology considers that the 14 conditions including the consulting by the specialist staff must be met before risk-reducing salpingo-oophorectomy is carried out.

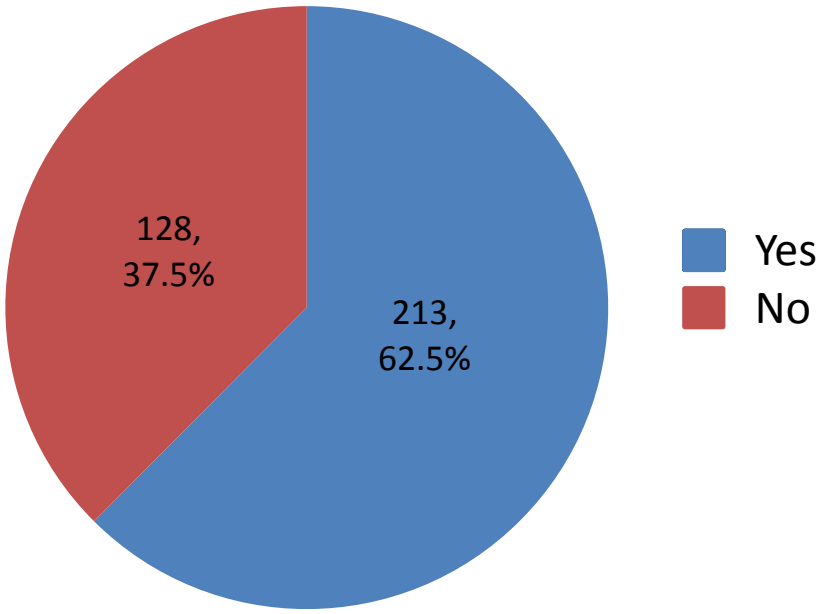
Running Head: questionnaire report regarding HBOC in Japan

Questions 1–8: Questions regarding your facility

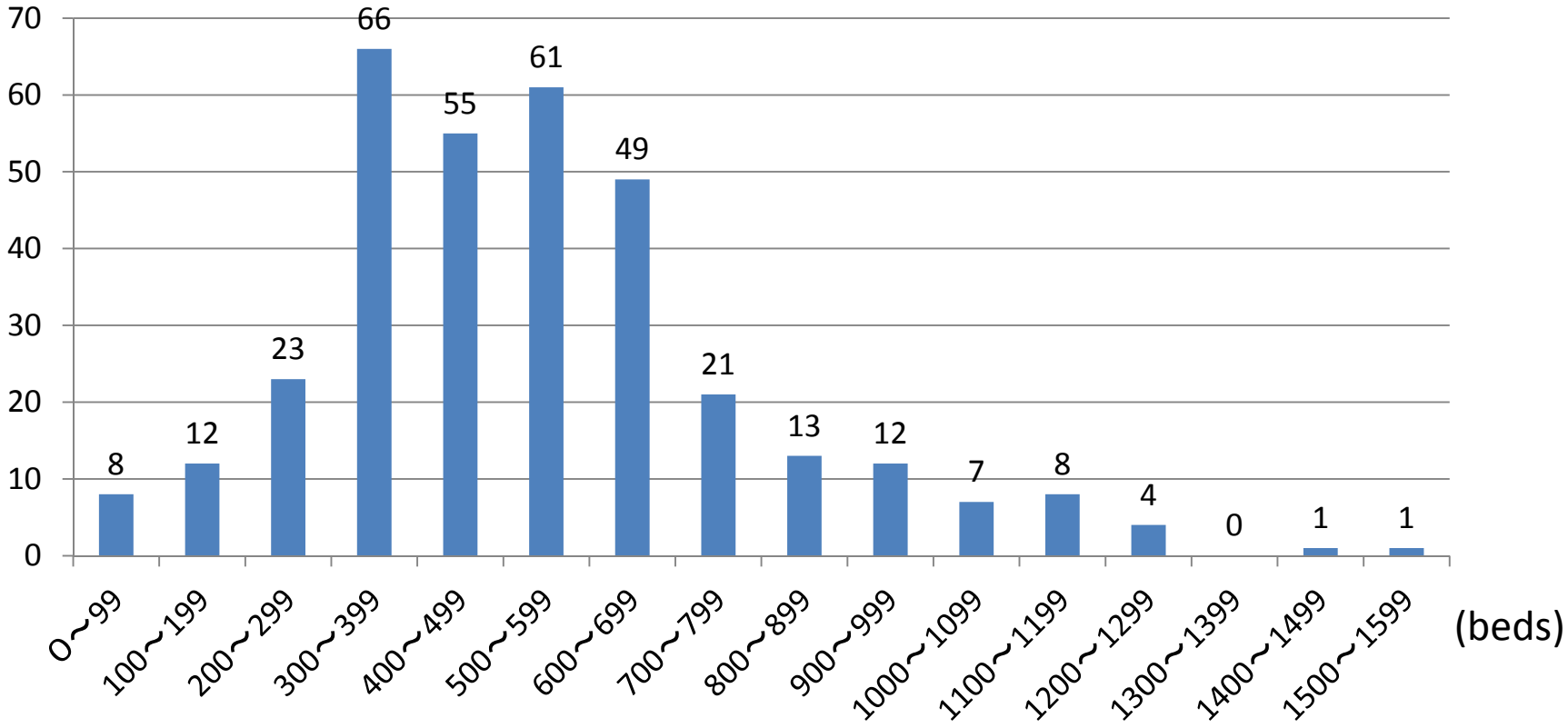
Question 1. Number of facilities that responded: 341
Which of the following applies to your facility?



Question 2. Number of facilities that responded: 341
Is your facility a designated cancer care hospital?

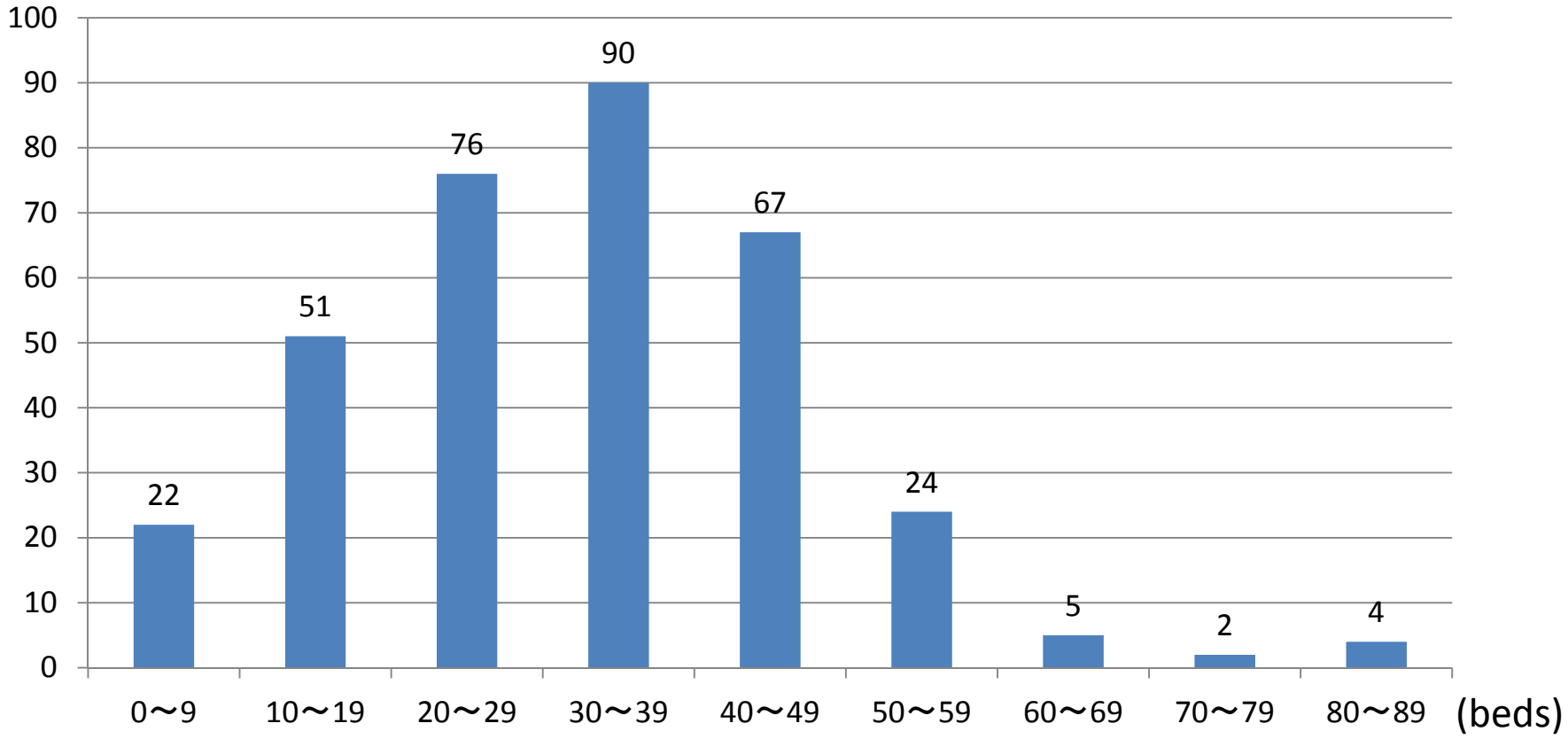


Question 3. Number of facilities that responded: 341
What is the total number of hospital beds in your facility?



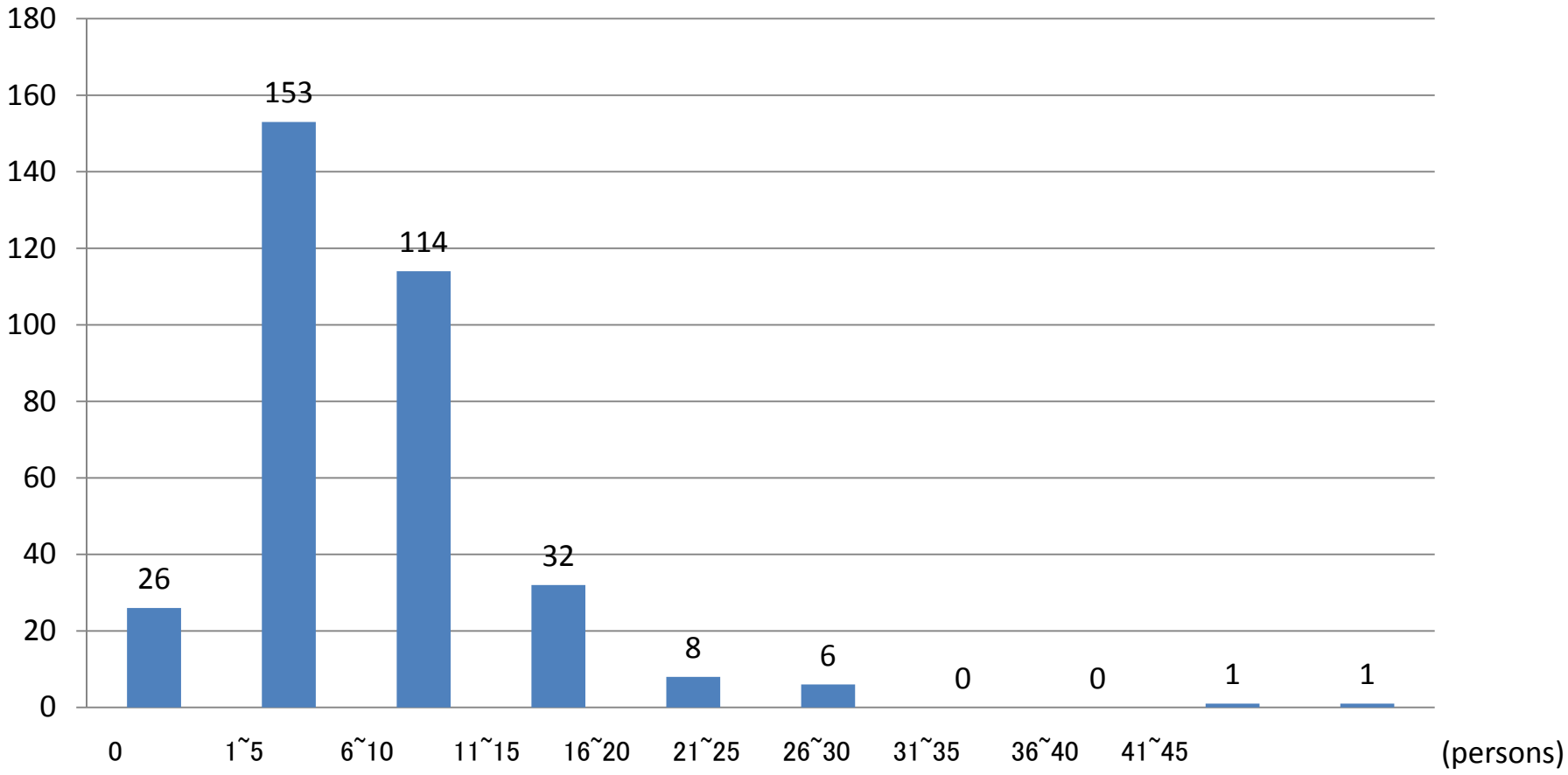
Question 4. Number of facilities that responded: 341

Please give the number of beds in the gynecology department of your facility.



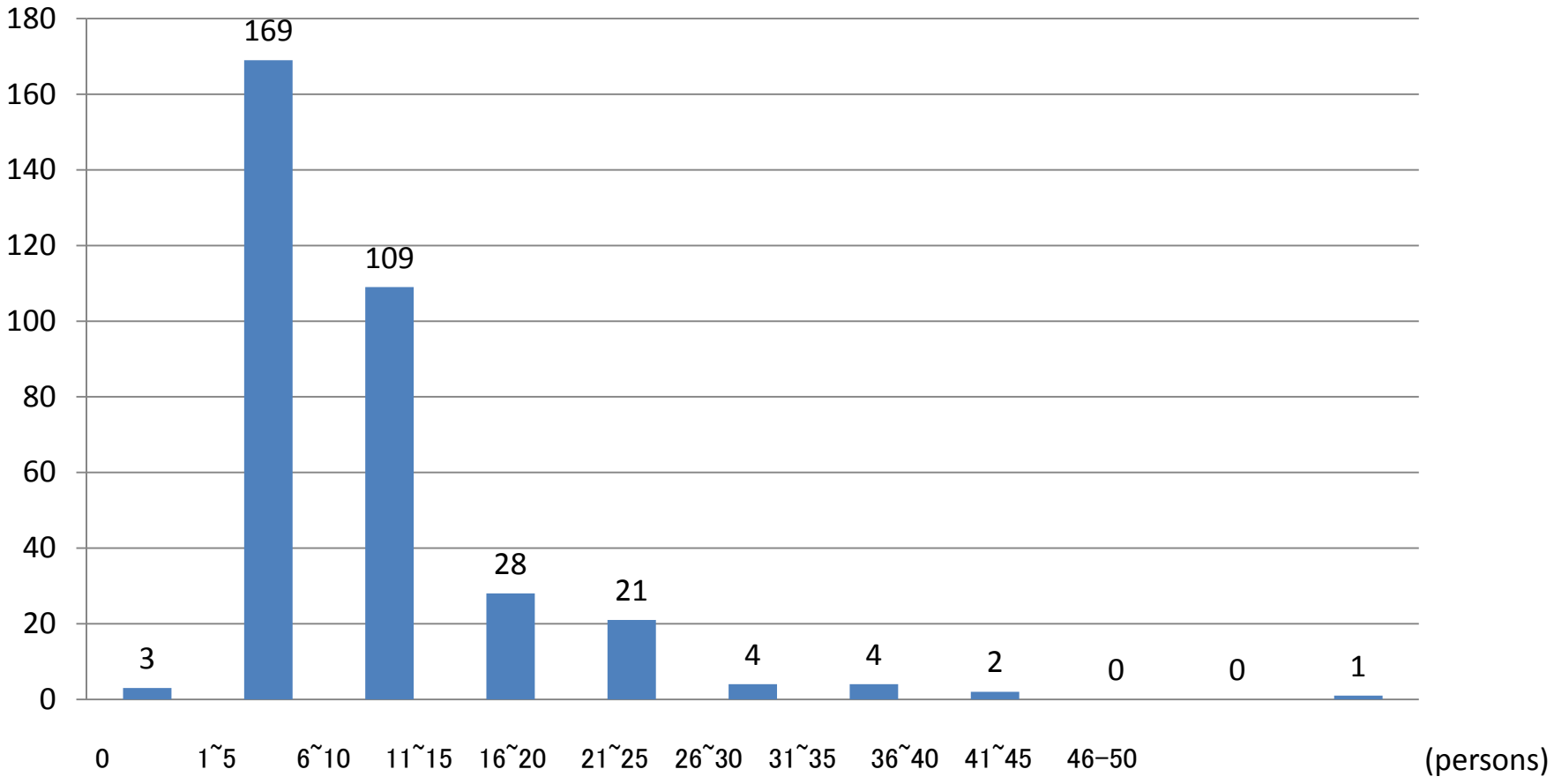
Question 5. Number of facilities that responded: 341

How many full-time doctors are involved in gynecological cancer treatment? (If none, answer 0)



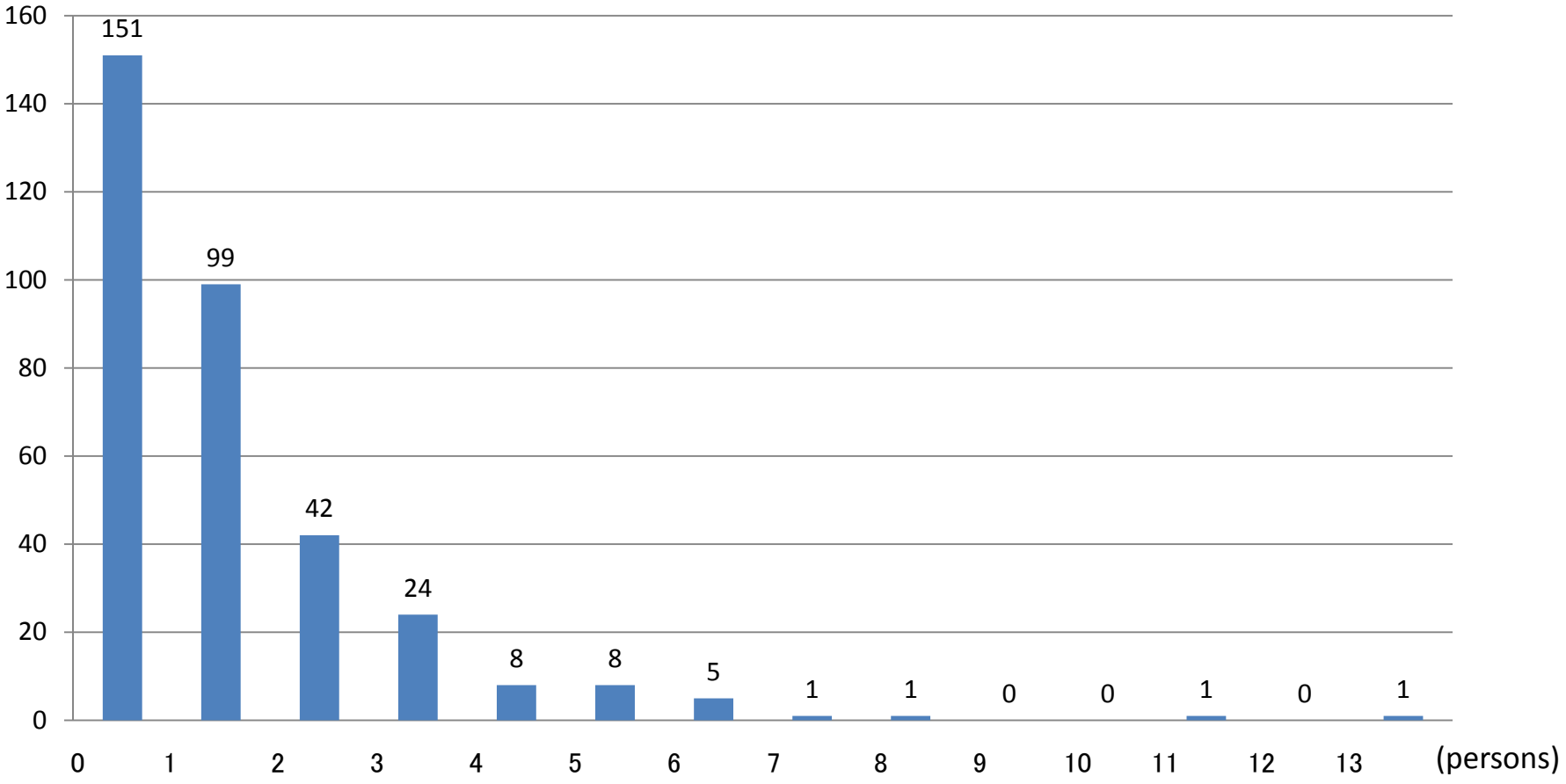
Question 6. Number of facilities that responded: 341

How many full-time specialist obstetrician-gynecologists are there? (If none, answer 0)



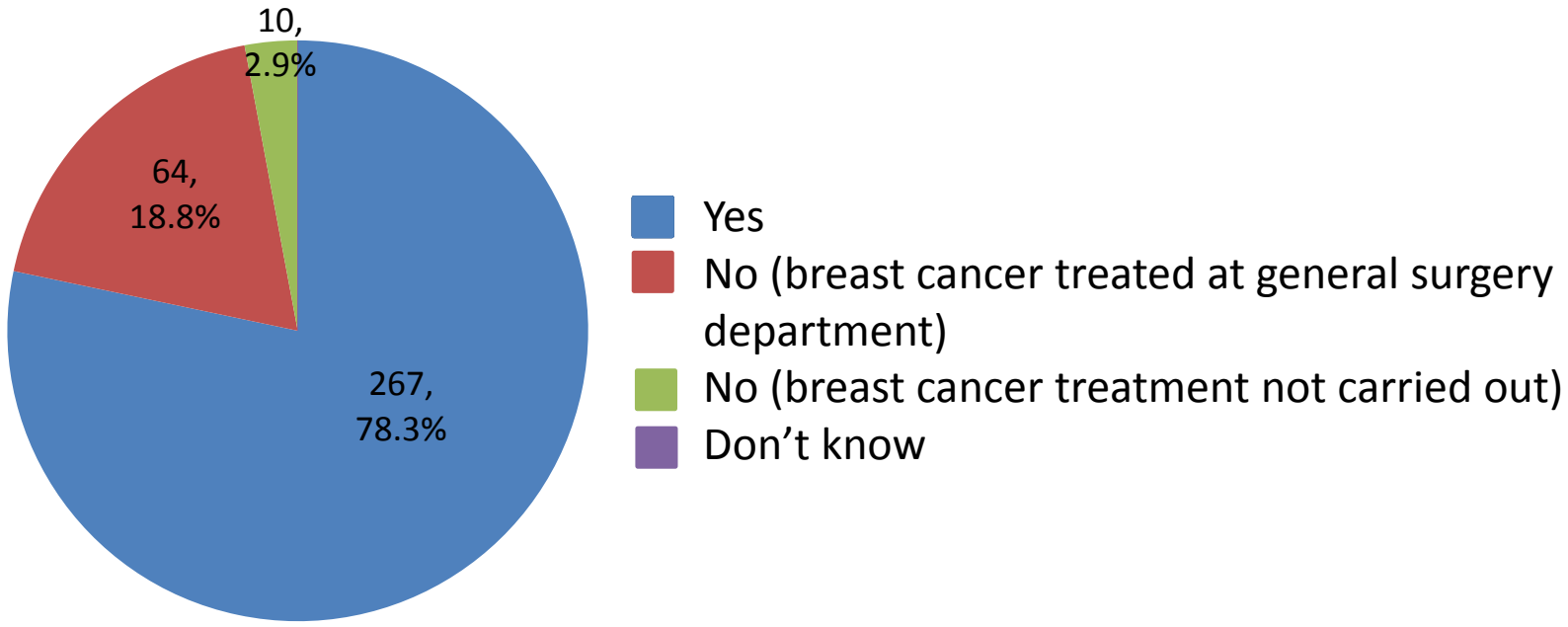
Question 7. Number of facilities that responded: 341

How many full-time Japan Society of Gynecologic and Oncology gynecologic oncologists are there?(If none, answer 0)



Question 8. Number of facilities that responded: 341

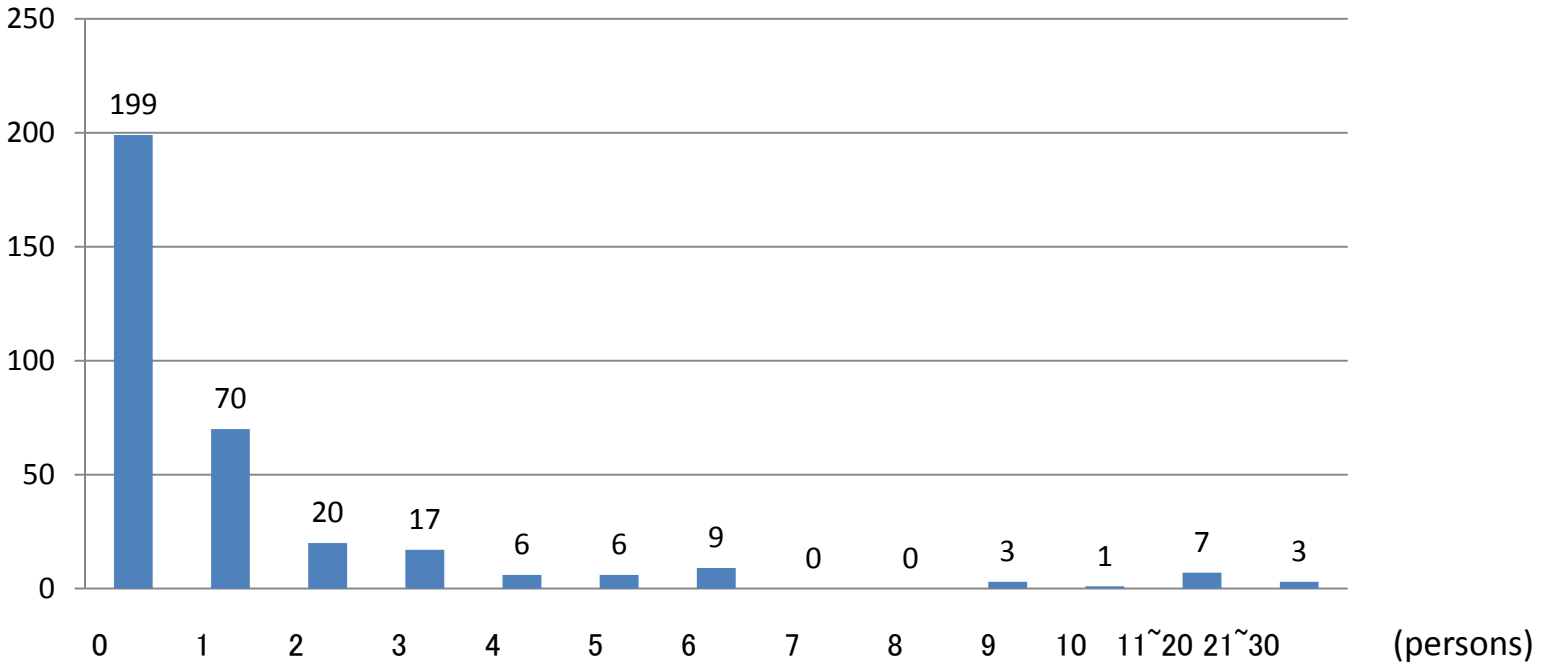
Is there a breast department (or an outpatient system with a breast specialist) at your facility?



Questions 9–12: Questions regarding the treatment system of hereditary diseases at your facility.

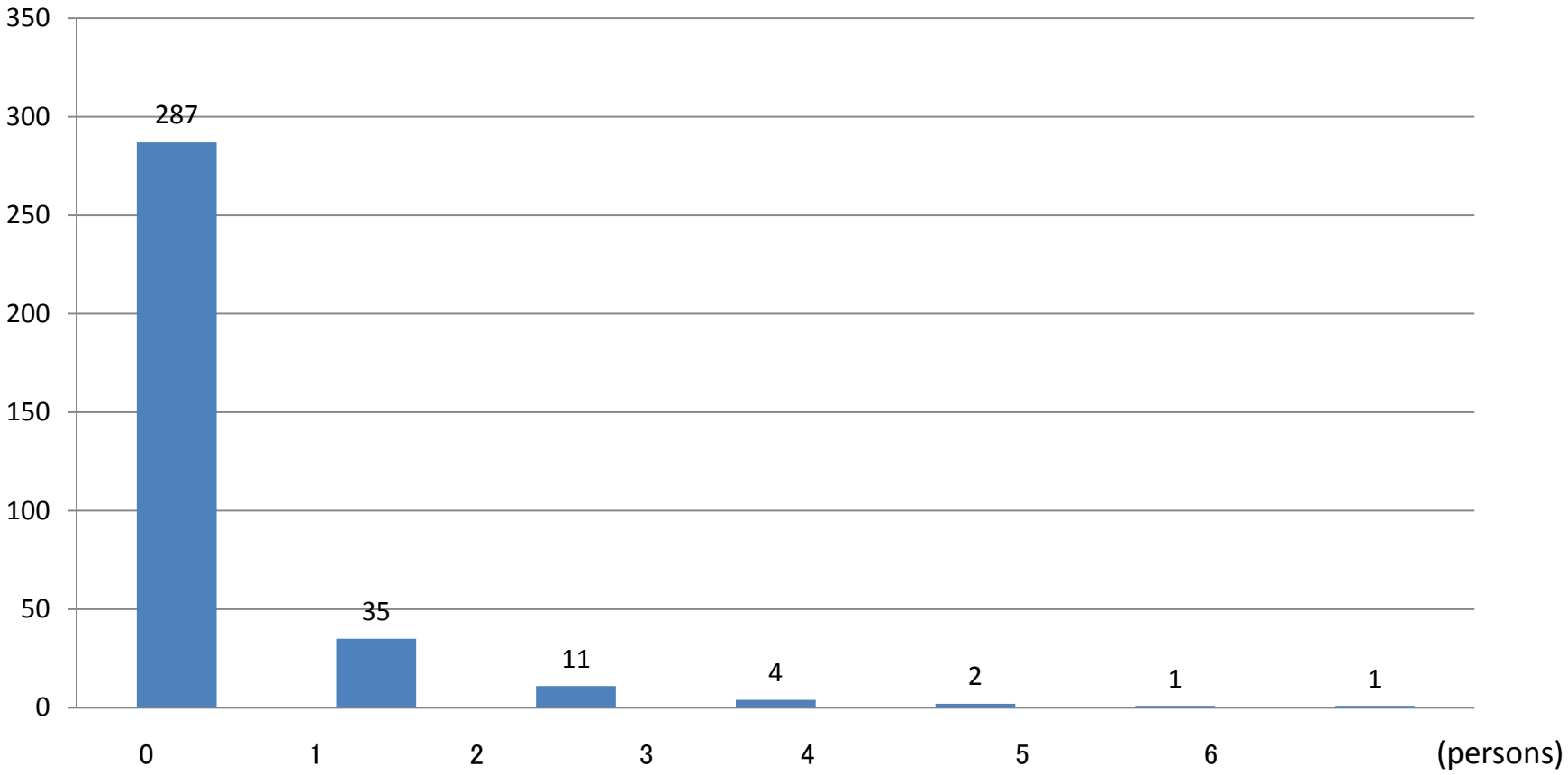
Question 9. Number of facilities that responded: 341

How many clinical geneticists certified by the Japan Society of Human Genetics or the Japanese Society for Genetic Counseling are there? (If none, answer 0)



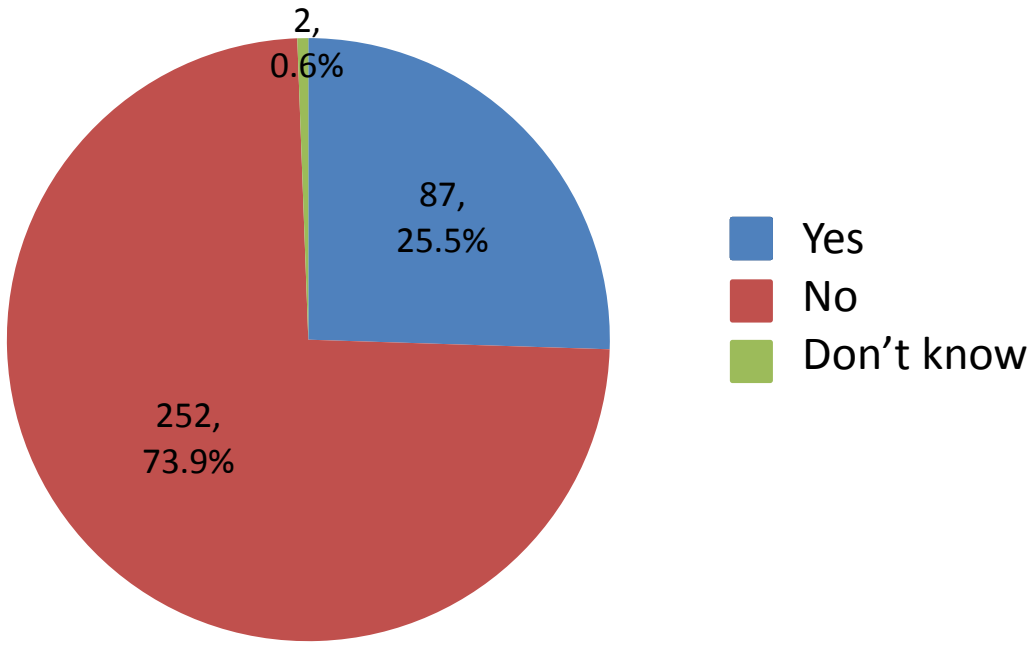
Question 10. Number of facilities that responded: 341

How many genetic counselors certified by the Japan Society of Human Genetics or the Japanese Society for Genetic Counseling are there? (If none, answer 0)



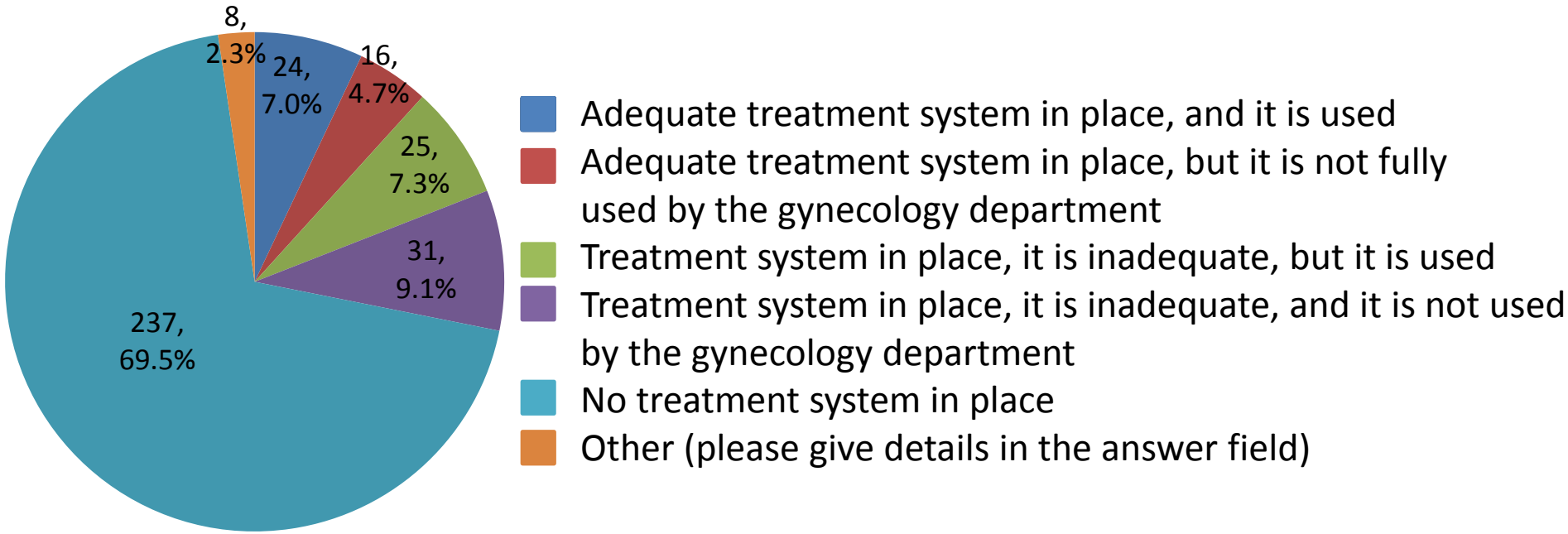
Question 11. Number of facilities that responded: 341

Does your facility have a specialist genetic outpatient clinic (outpatient genetic counseling, genetic diagnosis department, etc.)?



Question 12. Number of facilities that responded: 341

Please give your view of the HBOC treatment system at your facility (genetic outpatient clinic, number of staff needed, etc.).



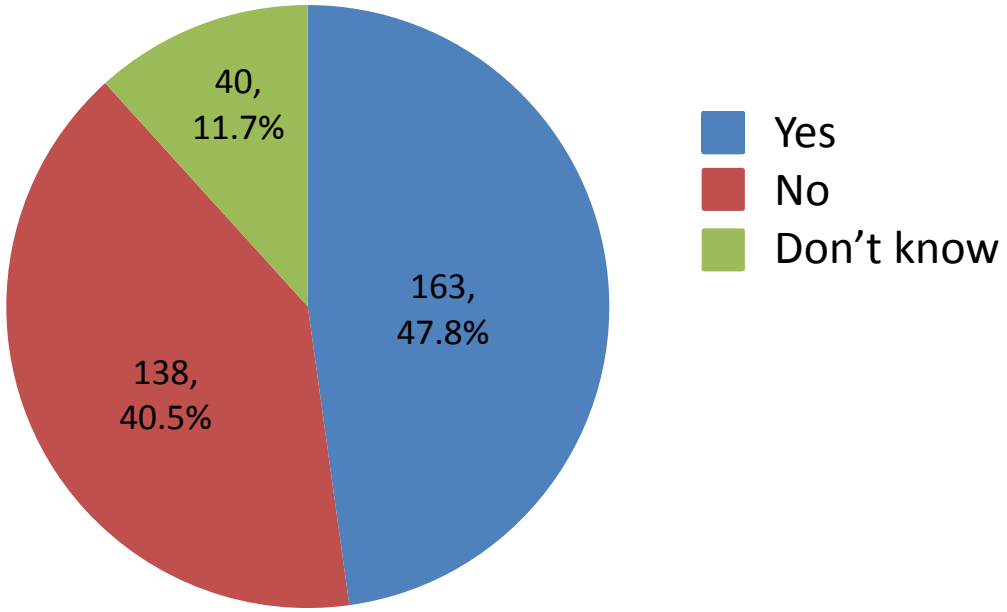
Question 12: Other

- Cases are referred to neighboring genetic outpatient clinic
- Currently being put in place
- HBOC not treated

etc.

Questions 13–15: Questions regarding your facility's response to women with a high possibility of HBOC due to previous history or family history (HBOC high-risk patients).

Question 13. Number of facilities that responded: 341
Have you encountered HBOC high-risk patients?



Question 14. Number of facilities that responded: 341
Do you take HBOC high-risk patients?

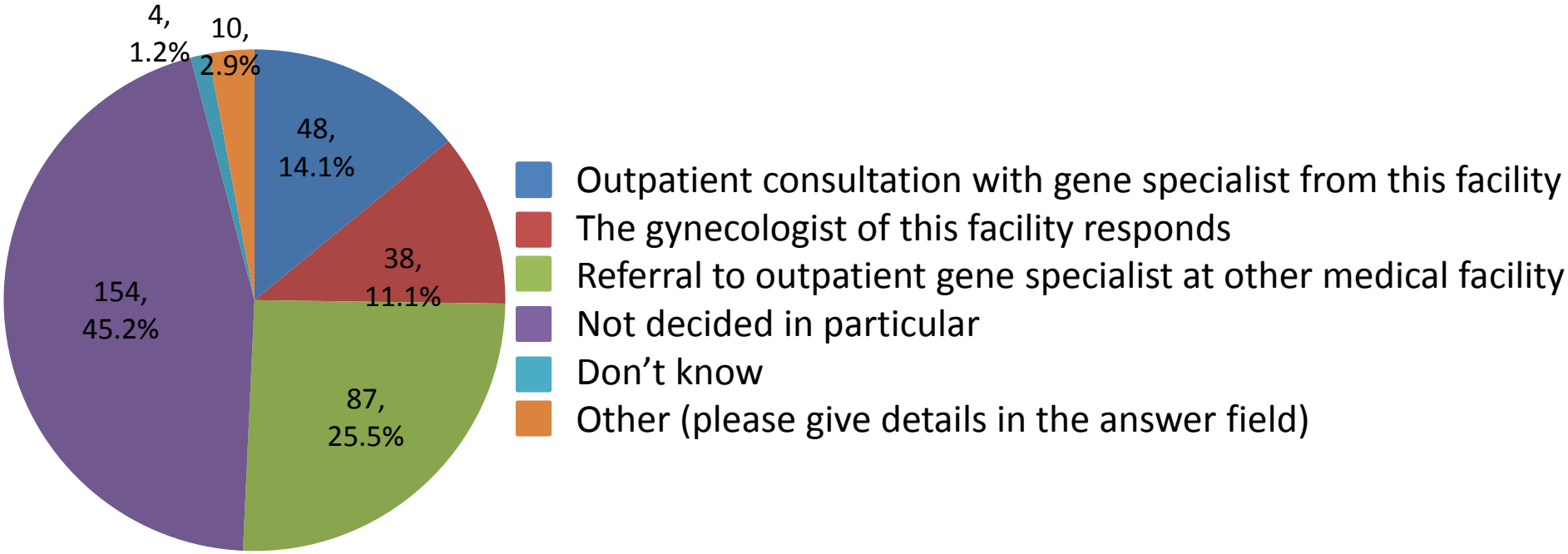
Question 14: Other

- Family history survey form handed over at first examination, collected at time of hospitalization
- Not offering treatment for HBOC
- In all cases of ovarian cancer and cancer of the uterine corpus, an opportunity is set up for an interview with a certified genetic counselor from this department (free of charge)
- There are differences in awareness depending on the doctor

etc.

Question 15. Number of facilities that responded: 341

What is the response when there is a high-risk HBOC patient?



Question 15: Other

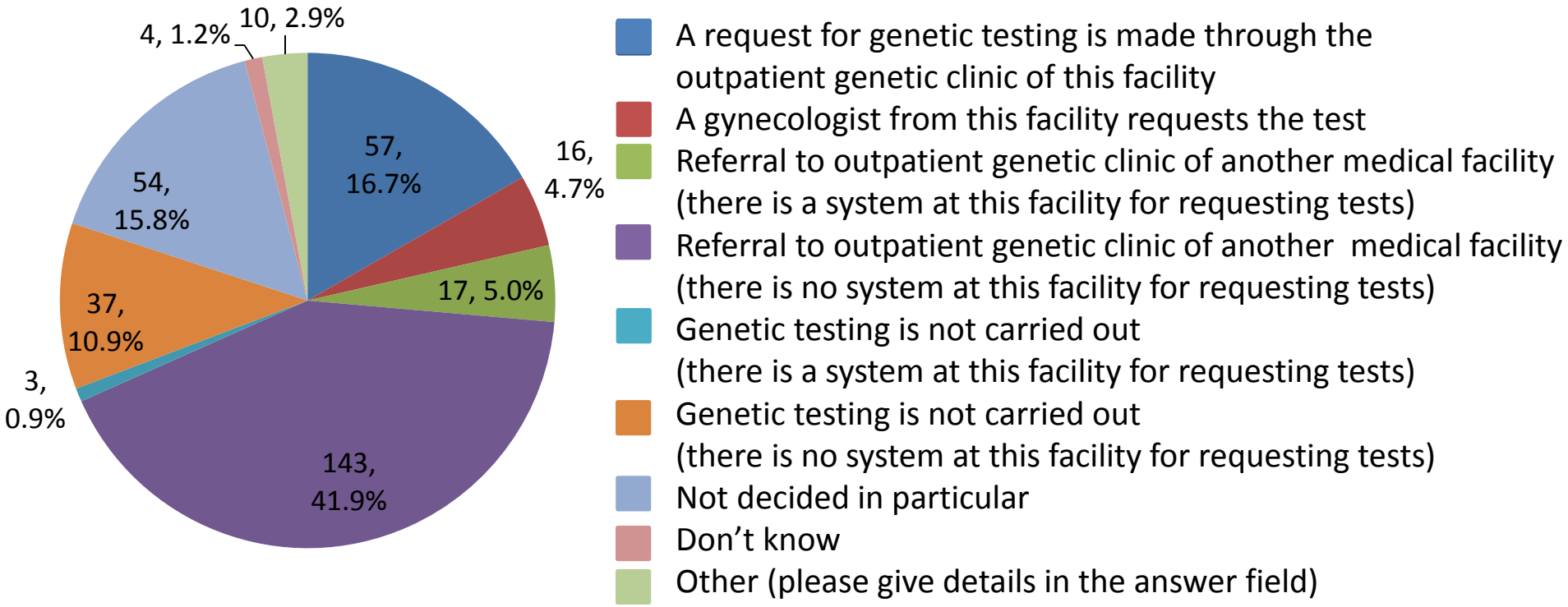
- The patient already had breast cancer, ovarian cancer
- Collaboration with advanced medical institution
- Not offering treatment for HBOC
- Response examined separately on each occasion
- Consultation with a specialist first
- Consultation with breast surgeon, response with part-time genetic counselor

etc.

Questions 16–21: Questions regarding HBOC genetic testing

Question 16. Number of facilities that responded: 341

Please show the response to requests from high-risk HBOC patients for genetic testing.



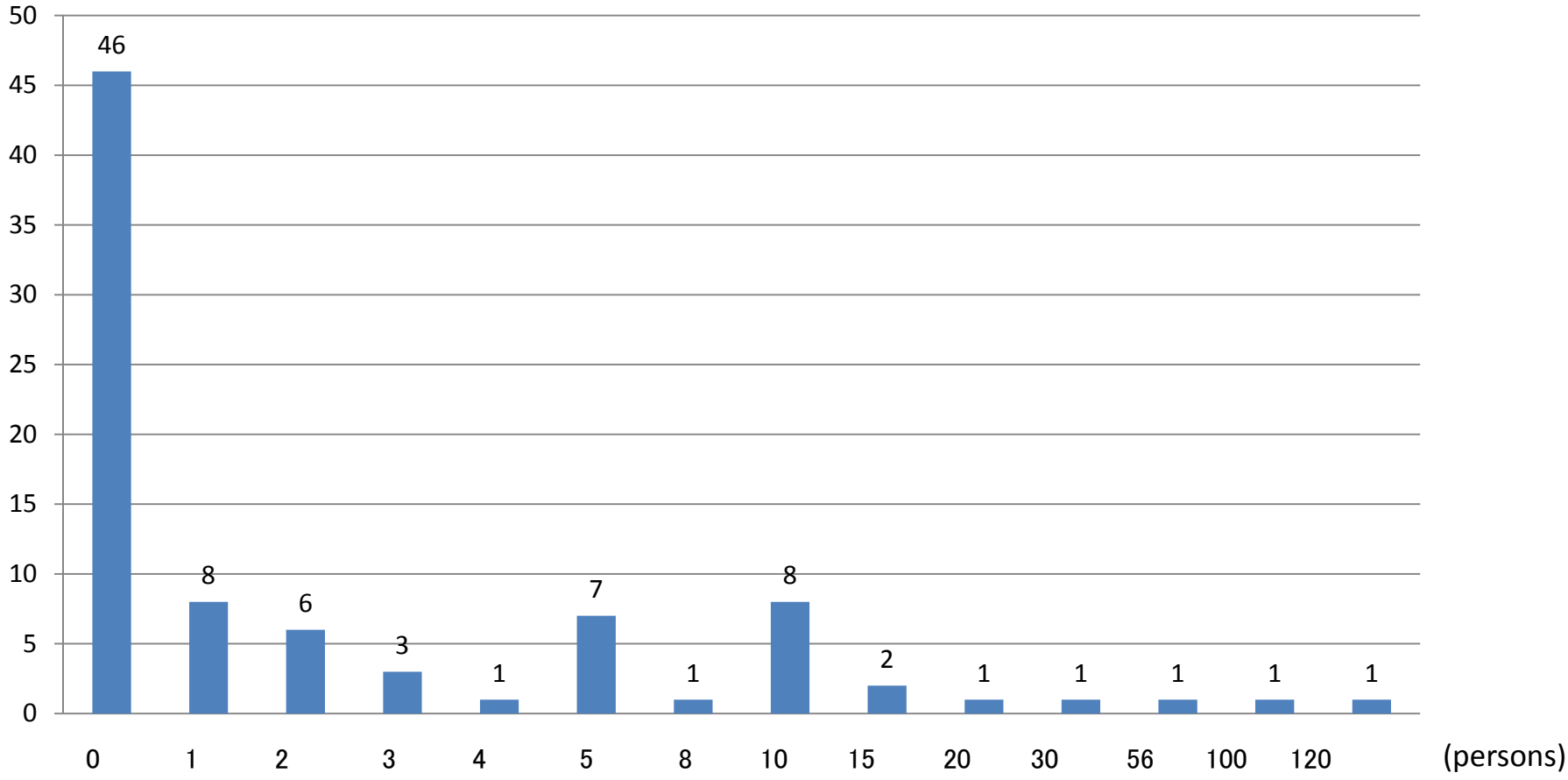
Question 16: Other

- Response only to development trials **[Does this translation reflect your intended meaning?]**
- System currently being put in place
- Collaboration with advanced medical institution
- Not offering treatment for HBOC
- Consultation with a specialist first

etc.

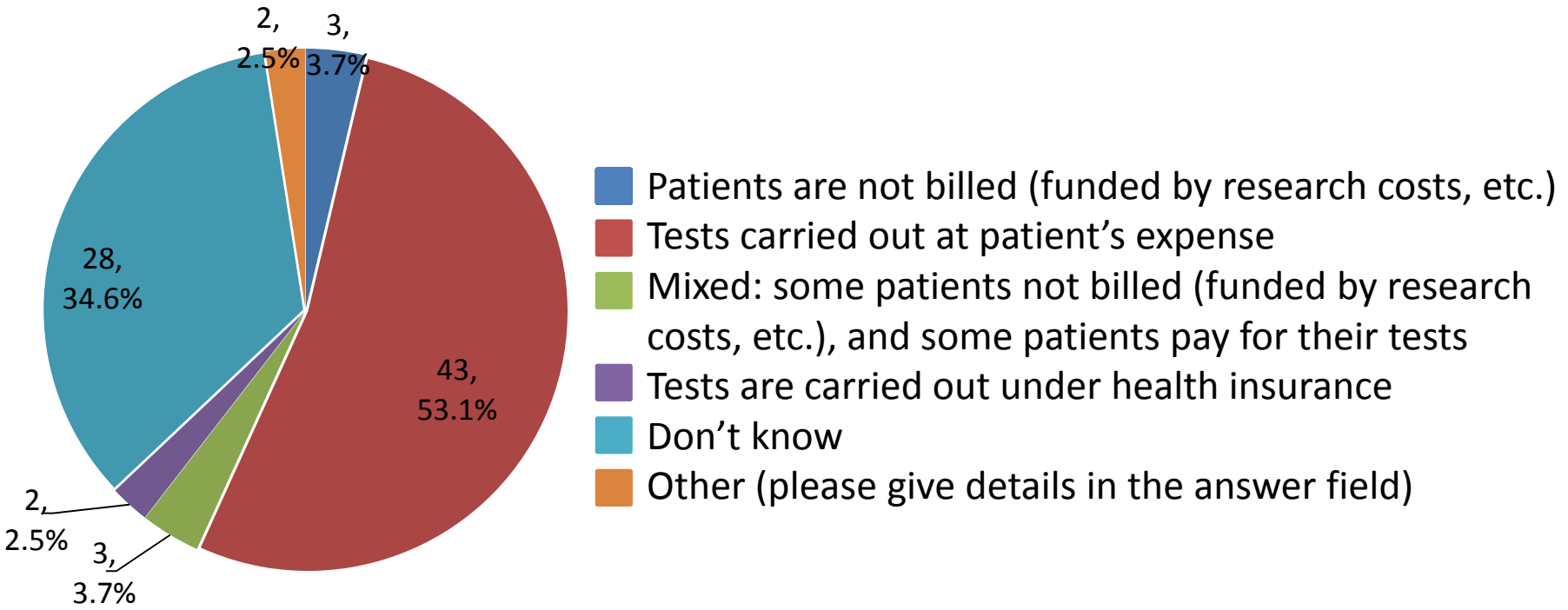
Question 17. Number of facilities that responded: 87

If your facility carrying out BRCA1/2 gene testing, and about how many patients are tested every year?



Question 18. Number of facilities that responded: 81

How are fees for BRCA1/BRCA2 gene testing at your facility paid?

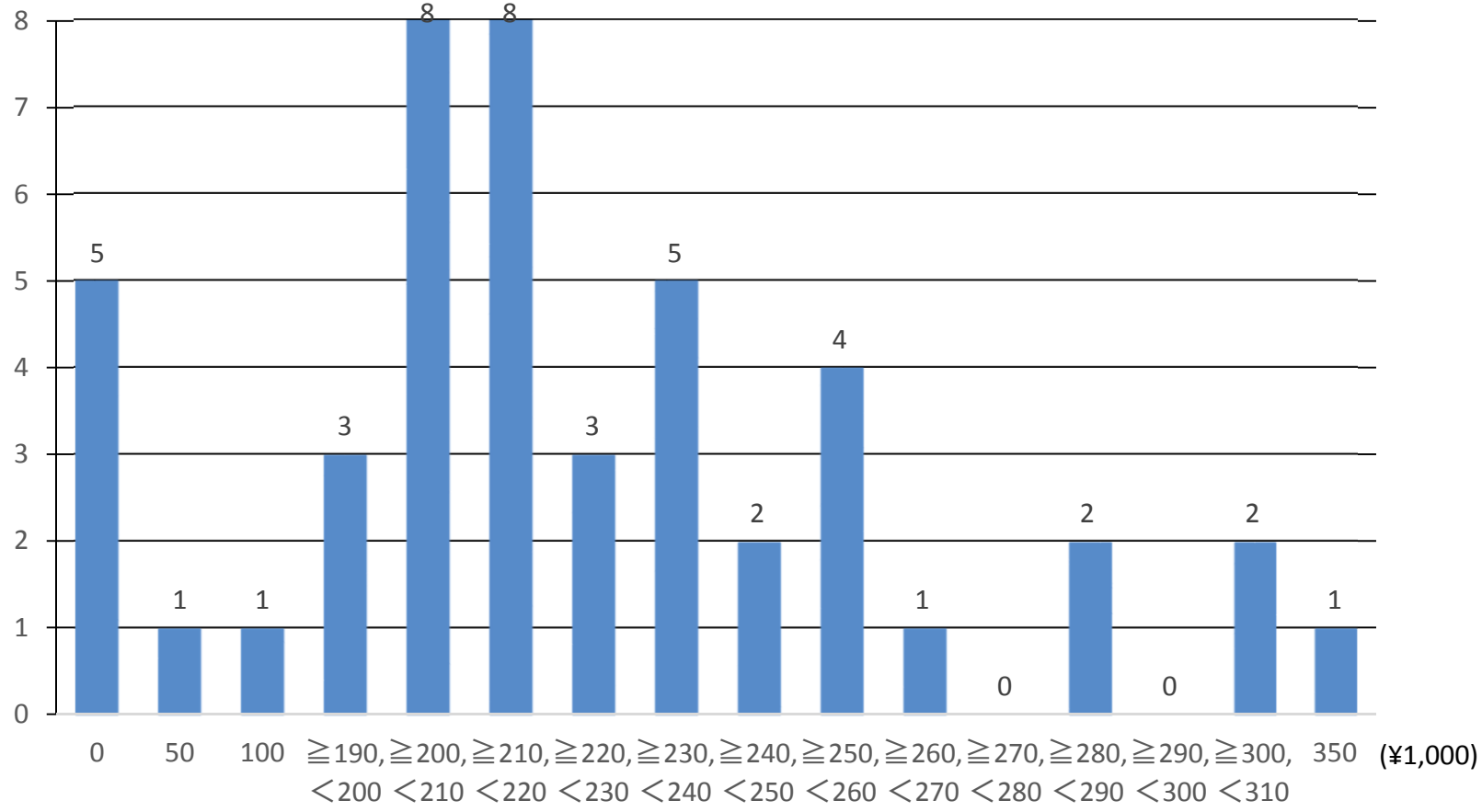


Question 18: Other

- Not offering treatment for HBOC
- System currently being prepared

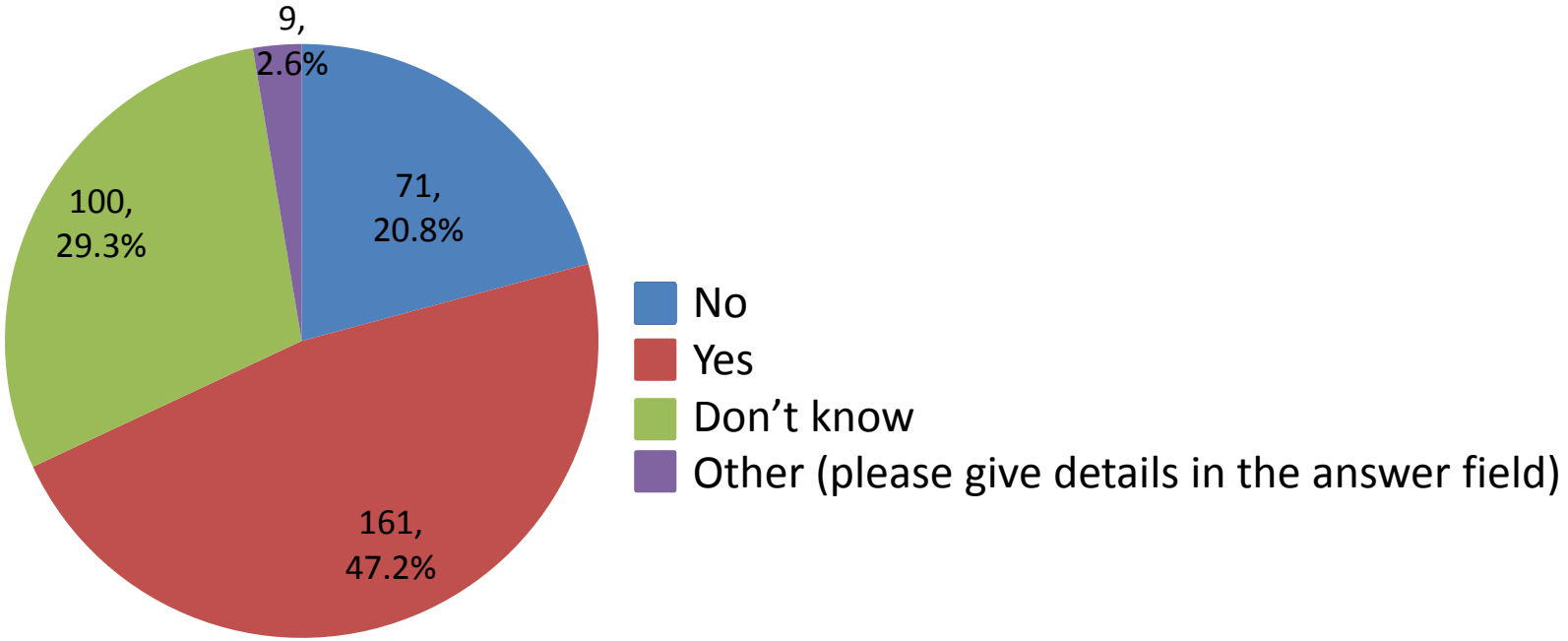
Question 19. Number of facilities that responded: 46

About how much is the charge at your facility for BRCA1/BRCA2 gene testing of a proband (someone in the family lineage for whom genetic mutation is unknown) who pays for their own test?



Question 20. Number of facilities that responded: 341

Do you think BRCA1/BRCA2 gene testing for HBOC should be covered by health insurance?

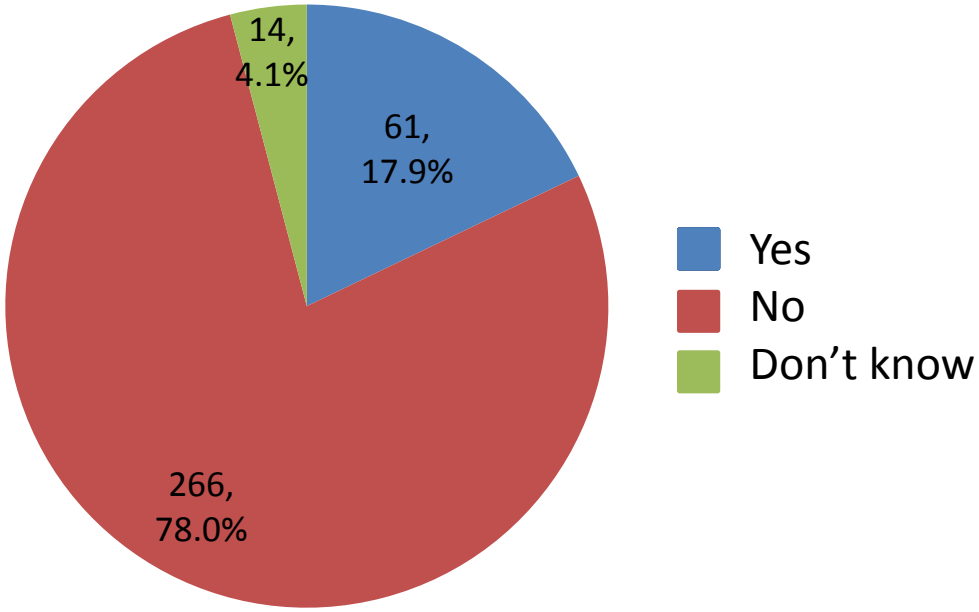


Question 20: Other

- Coverage with strict criteria should be recommended.
- Application of health insurance should be clarified.
- It should be covered by health insurance if family history shows that the patient is at high risk, otherwise it should be at the patient’s expense.
- If the evidence is established in Japan.
- Coverage by health insurance is desirable if there is the option to choose from several insurance companies, thus enabling a social response.
- It would be good to examine coverage if it were a little cheaper after patents expire.
- Patients with any hereditary disease, not just HBOC, should be treated equally.
- It should be covered if a national system of counseling and treatment, etc. is put in place

Question 21. Number of facilities that responded: 341

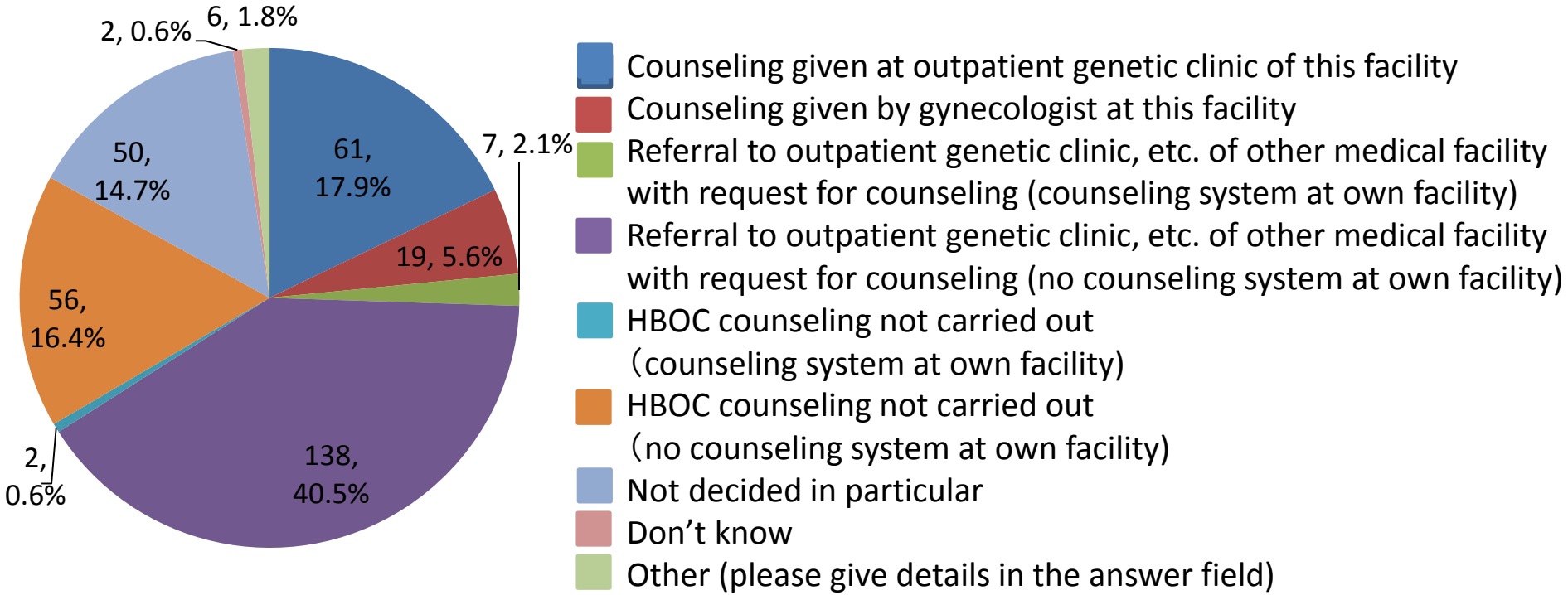
Have you actually encountered patients diagnosed with HBOC by genetic testing?



Questions 22–26: Questions concerning HBOC counseling at your facility

Question 22. Number of facilities that responded: 341

What is the response of your facility when an HBOC high-risk patient or patient diagnosed with HBOC wishes to have counseling?



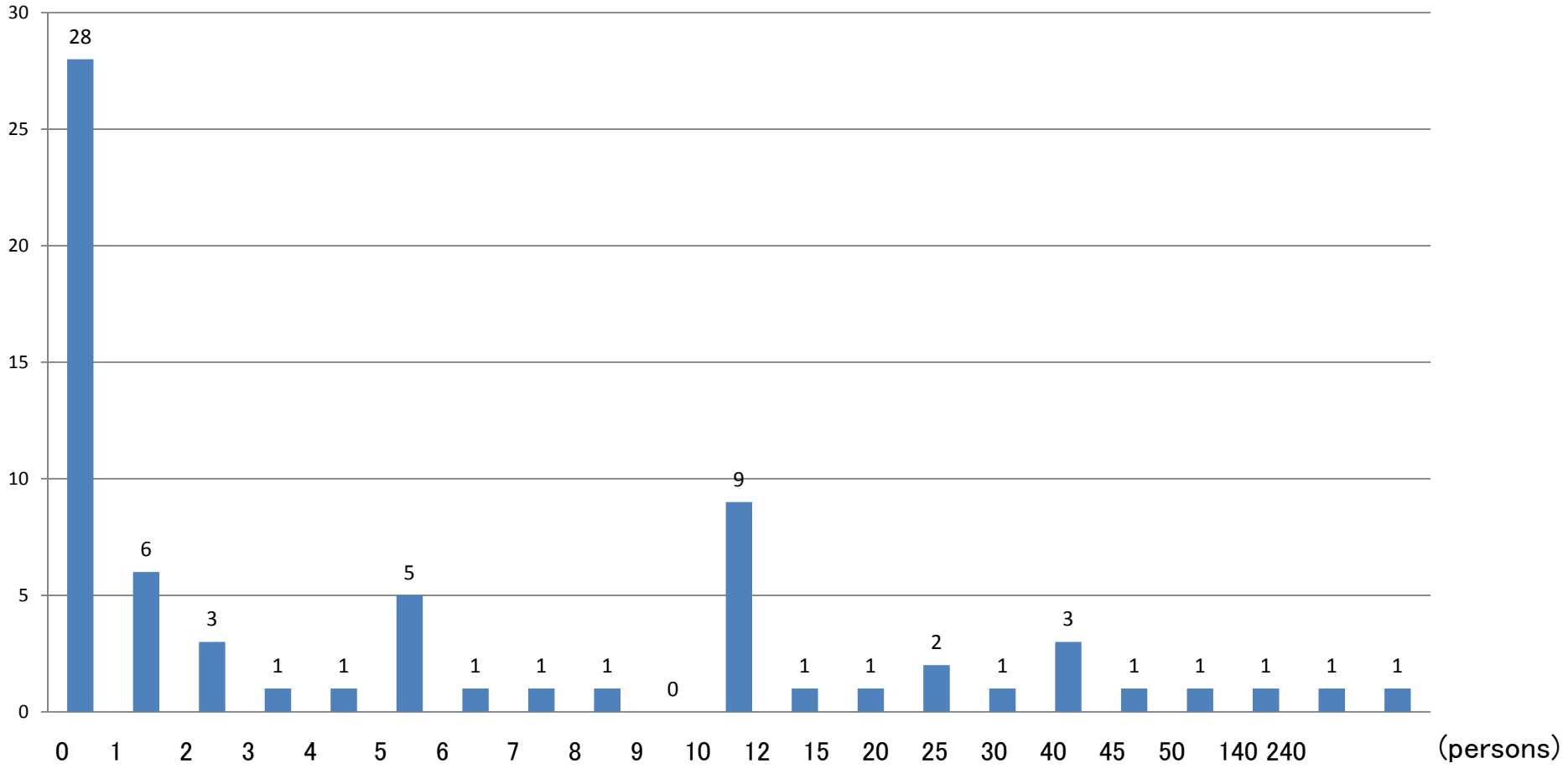
Question 22: Other

- Response in preparation. Response by gynecologist planned.
- Collaboration with advanced medical institution
- Not offering treatment for HBOC
- Consultation with a specialist first
- Consultation with breast surgeon, response by part-time genetic counselor

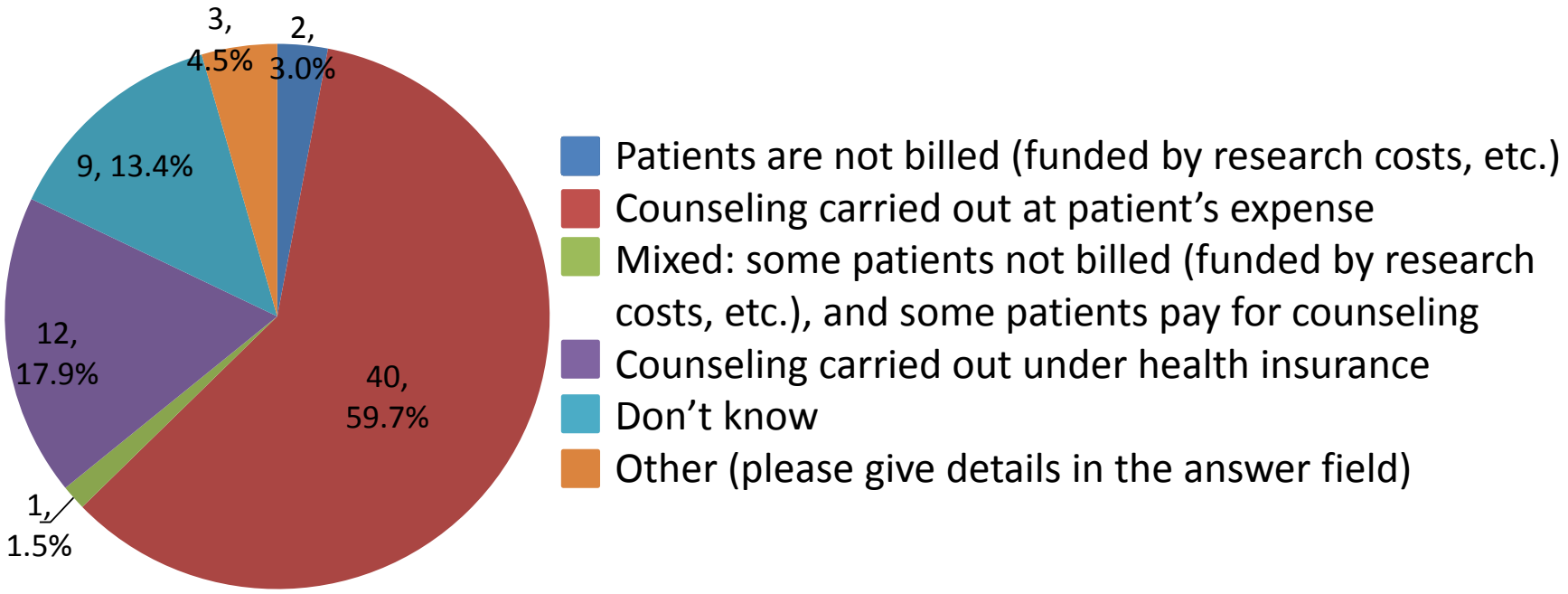
etc.

Question 23. Number of facilities that responded: 69

If HBOC counseling is carried, about how many patients receive counseling every year?



Question 24. Number of facilities that responded: 67
If counseling is carried out at your facility, how are test fees paid?



Question 24: Other

- Counseling is only consultation

etc.

Question 25. Number of facilities that responded: 37

If counseling at your facility is paid for by the patient, about how much is the charge?

● 2 hour session: ¥3,000–5,000 ● 30 min: ¥3,150 ● 1 hour session: ¥10,000 ● 1 hour session: ¥3,000 ● 1 session: ¥5,000 ● 1.5 hours: ¥10,000 ● 1 hour session: ¥10,800 ● 1 session: ¥3,150 ● ¥3,000 ● ¥8,000 ● 30 min: ¥5,000 + consumption tax, initial visit fee is separate ● 1 session, up to 1.5 hours: ¥9,000 ● 1.5 hour session: ¥11,200 ● 30 min session: ¥5,000 ● 1 hour: ¥5,000 ● 90 min: ¥3,150

● Initial visit: ¥10,000 + consumption tax, subsequent visit: ¥5,000 + consumption tax ● Initial visit: ¥5,000, subsequent visit: ¥3,000 ● Initial visit: ¥10,000, subsequent visit: ¥5,000 ● Initial visit: ¥8,400, subsequent visit: ¥6,300 ●Initial visit: ¥10,000, subsequent visit: ¥5,000 ● Initial visit: ¥5,250 (inc. tax), subsequent visit: ¥4,200 (inc. tax) ● Initial visit, 1 hour: ¥12,000, subsequent visit, 30 min: ¥6,000 ●Initial visit, 1 hour session: ¥5,142, subsequent visit, 1 hour session: ¥3,599 ● Initial visit: ¥8,665 (initial visit fee: ¥3,045, counseling fee (up to 1 hour): ¥5,620), subsequent visit: ¥6,408 (subsequent visit fee: ¥788, counseling fee (up to 1 hour): ¥5,620) ● Initial visit: ¥7,500, subsequent visit: ¥4,000 no particular time limit. No charge for treatment if on the same day as a treatment paid for under health insurance.

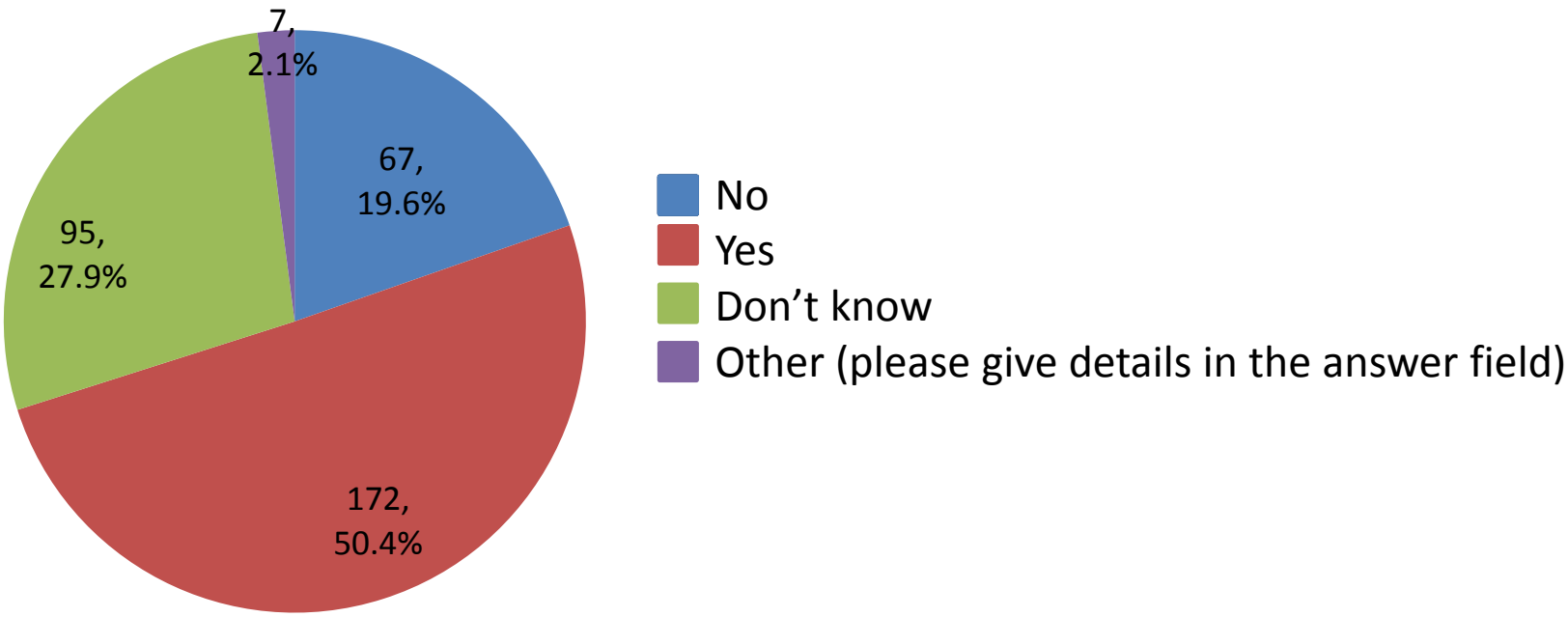
● Depends on the time. Minimum: ¥3,000 ● Before testing, on the day of testing, explanation of results: ¥12,000 for 3 sessions

● Calculated as ¥10,000 for 1 session up to 1 hour, ¥5,000 for each subsequent 30 min ● Initial visit, 1 hour: ¥5,400, for each subsequent 30 min: ¥1,940. Subsequent visit, initial 30 min: ¥2,910, for each subsequent 30 min: ¥1,940 ● Calculated as ¥10,800 for up to 30 min, ¥5,400 for each extra 30 min ● Initial session up to 1 hour: ¥7,560, after 1 hour, for each 30 min: ¥3,780. Subsequent visits, up to 1 hour: ¥5,400, for each subsequent 30 min: ¥2,700

● Internal referral: ¥3,900 (not inc. consumption tax). External referral: ¥8,500 (not inc. consumption tax)

Question 26. Number of facilities that responded: 341

Do you think HBOC counseling fees should be covered by health insurance?



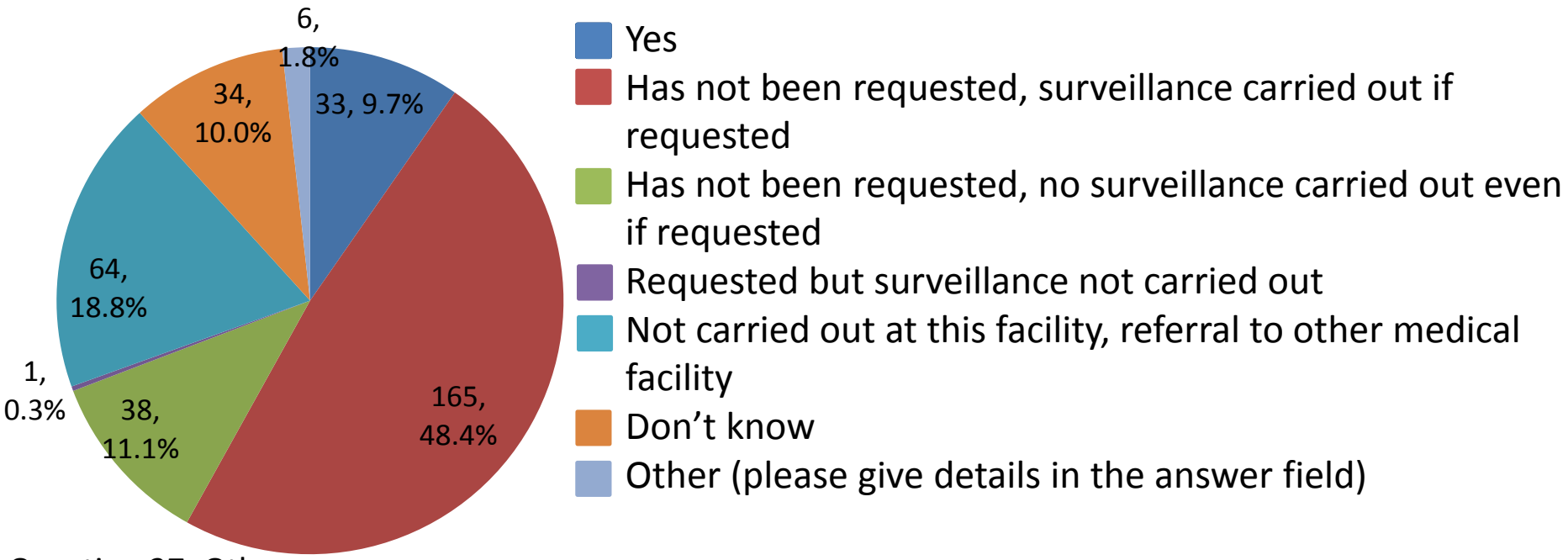
Question 26: Other

- Other things should be included under the insurance before HBOC counseling fees
- Insurance only for those eligible as a result of genetic testing
- I think it should be set individually by the hospital
- I would very much like counseling by geneticists and certified gene counselors to be covered by insurance
- I think all gene consultations should be treated equally, not just HBOC
- All genetic counseling fees should be included in insurance, not just HBOC
- It should be covered if a national system of counseling and treatment, etc. is put in place

Questions 27–35: Questions regarding ovarian cancer surveillance (screening) in relation to HBO at your facility.

Question 27. Number of facilities that responded: 341

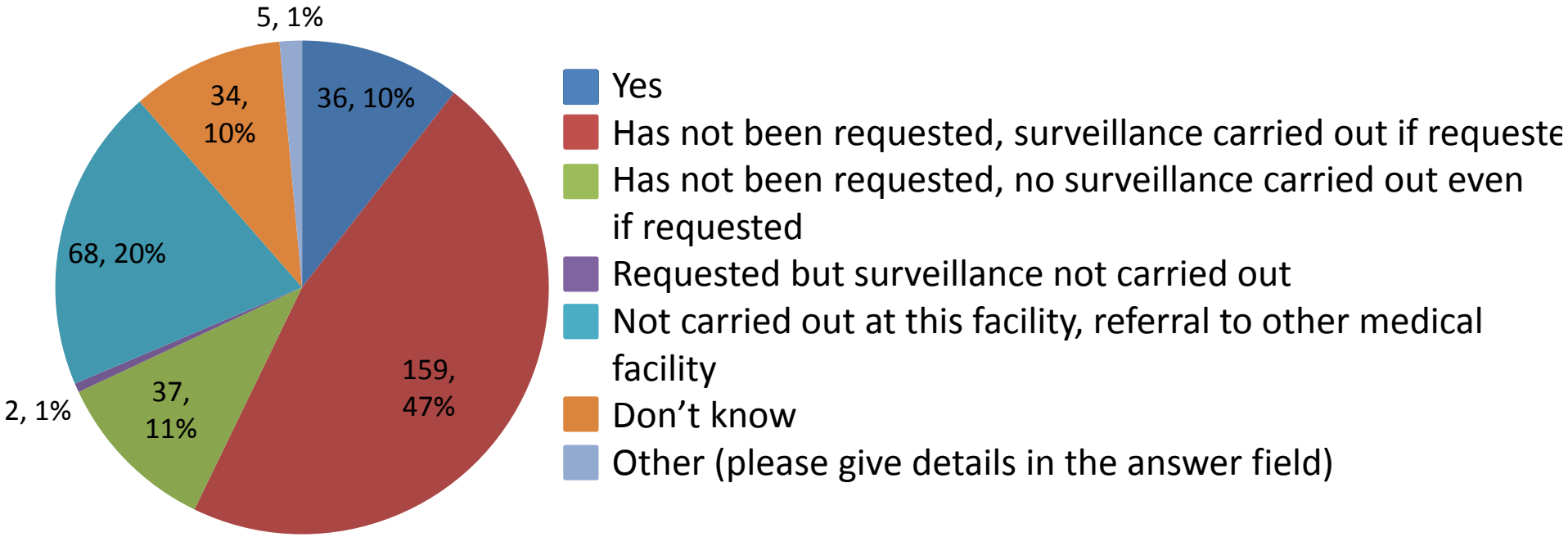
Is ovarian cancer surveillance carried out for women diagnosed with ovarian cancer-free HBOC through genetic testing?



Question 27: Other

- Not offering treatment for HBOC
- Surveillance would be carried out for such patients if screening intervals and specific methods were given in the guidelines, etc.
- Referral to other facility for primary surveillance, referral back to this facility if there are abnormal findings
- No specific surveillance method decided, examination carried out at the level of gynecological examination etc.

Question 28. Number of facilities that responded: 341
Is ovarian cancer surveillance carried out for ovarian cancer-free women at high risk of HBOC (genetic testing not carried out)?

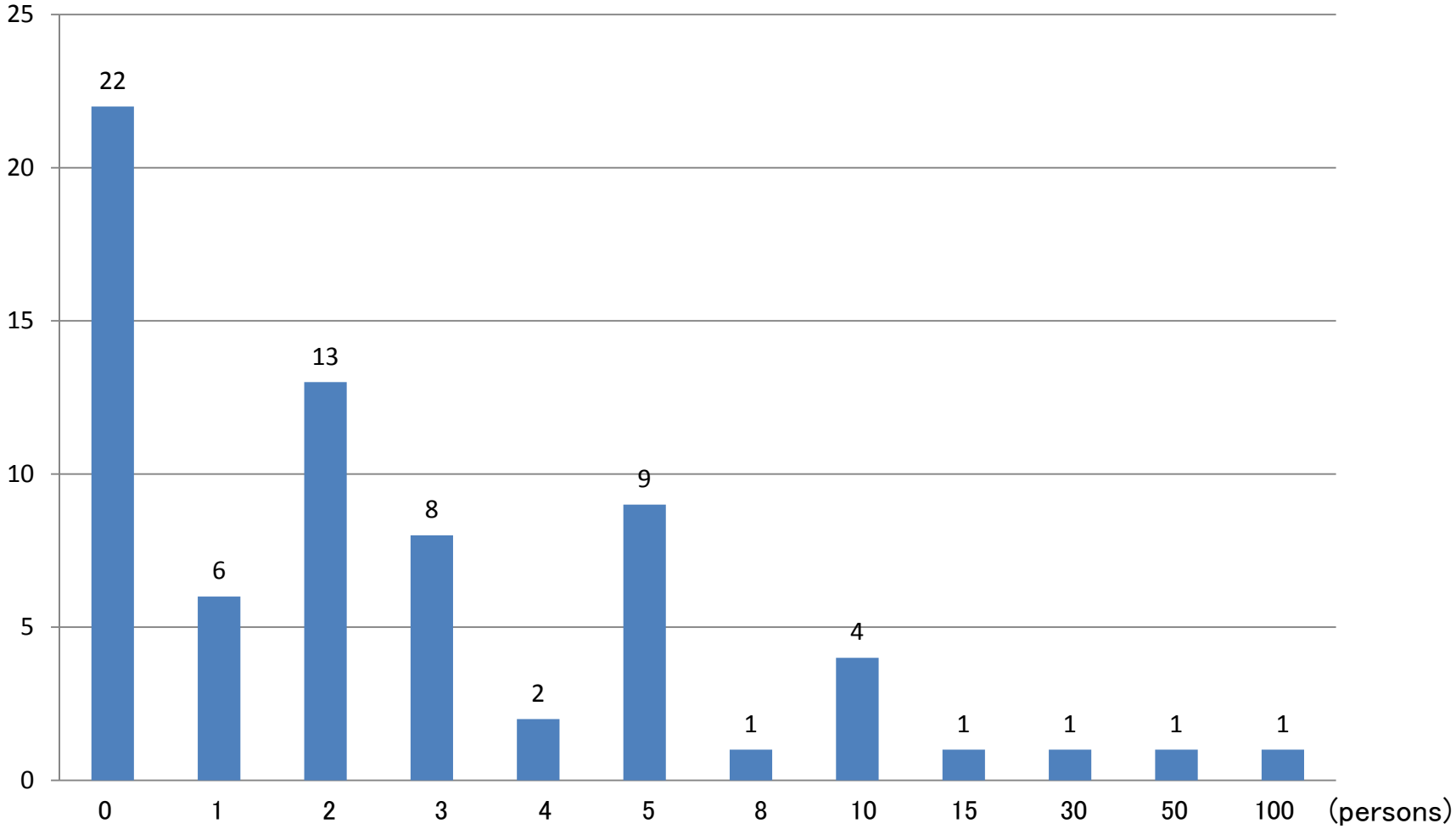


Question 28: Other

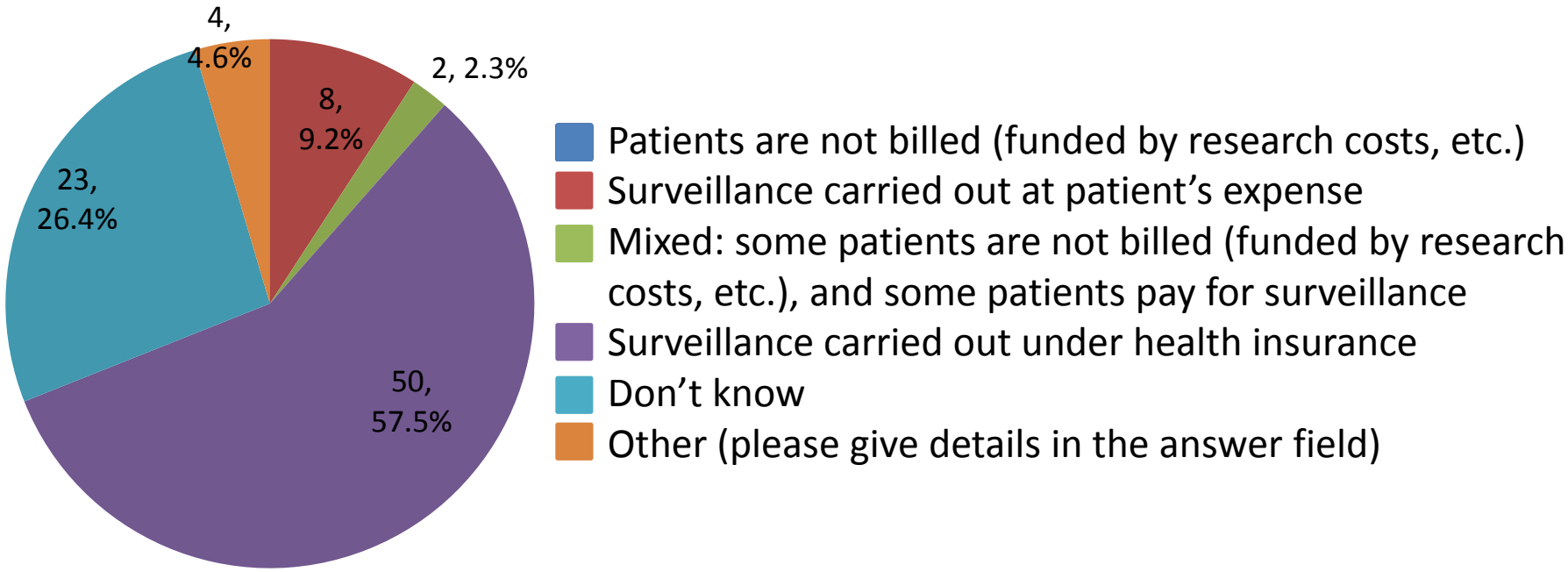
- Not offering treatment for HBOC
- Surveillance would be carried out for such patients if screening intervals and specific methods were given in the guidelines, etc.
- No specific surveillance method decided, examination carried out at the level of gynecological examination

Question 29. Number of facilities that responded: 69

If surveillance is carried out, about how many patients per year is it given to?



Question 30. Number of facilities that responded: 87
If surveillance is carried out at your facility, how are test fees paid?



Patients are not billed (funded by research costs, etc.): 0%

Question 30: Other

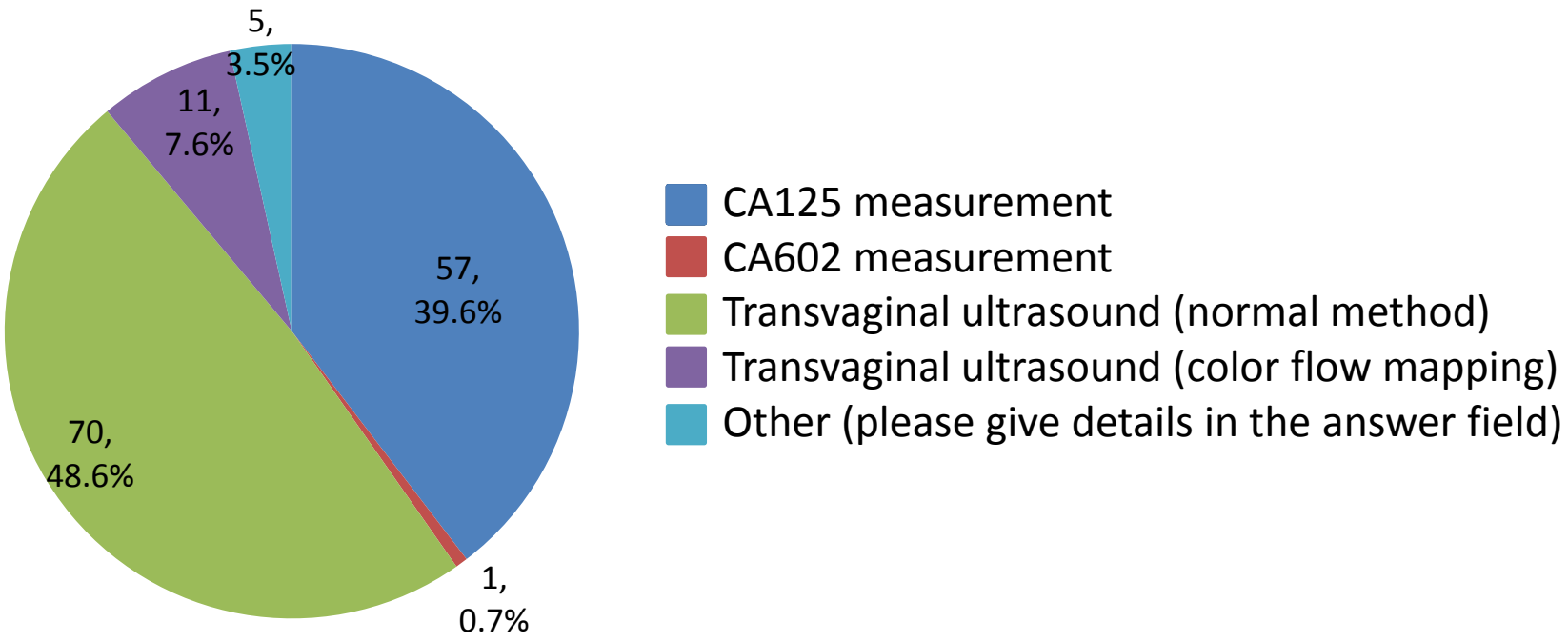
- Have not received a request
- Primary surveillance at other facility, referral to this facility if there are abnormal findings etc.

Question 31. Number of facilities that responded: 8
If your facility carries out surveillance at the patient's expense, about how much is the fee?

● ¥5,000 ● ¥8,000 for one session
● Test and treatment fee: ¥2,990, gynecological ultrasound: ¥5,630, gynecological tumor markers, ¥3,820
● Subsequent visit fee and ultrasound fee at charged at patient's expense
● CA125 test fee + ultrasound ¥5,000
● Not carried out ● Not carried out at patient's expense ● Undecided

Question 32. Number of facilities that responded: 73

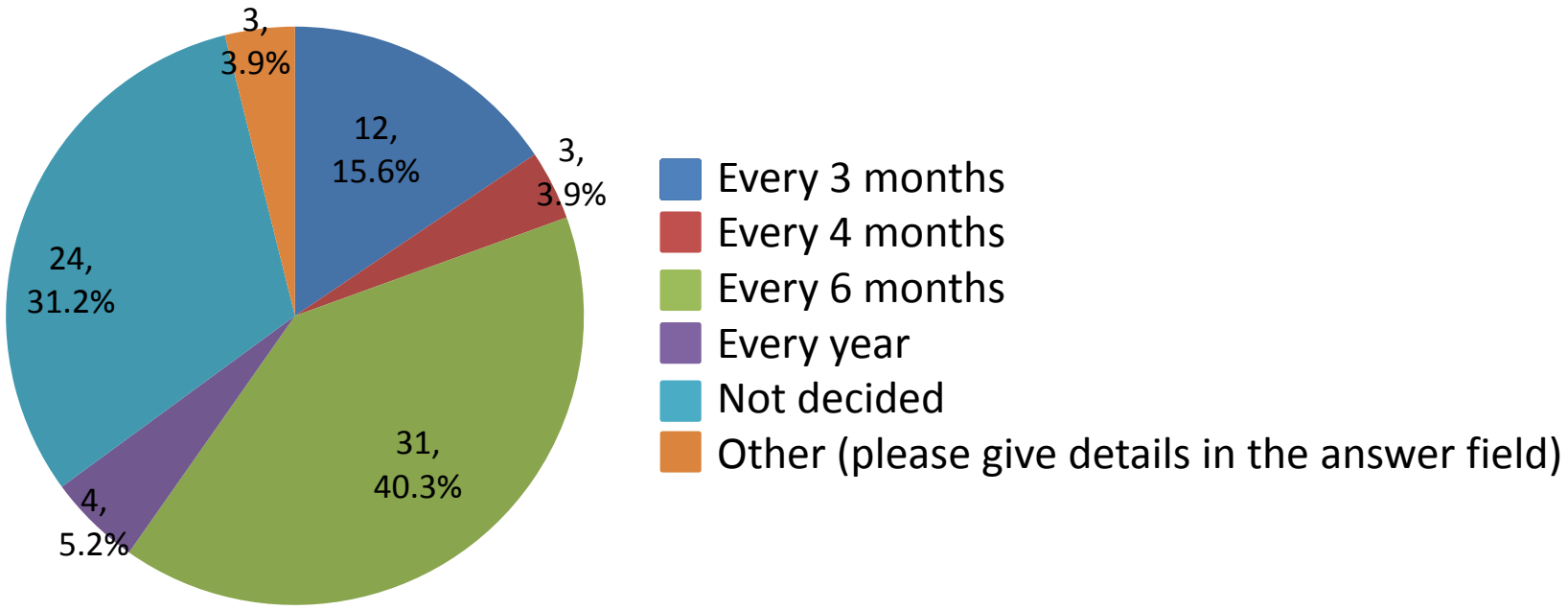
What does surveillance at your facility comprise? (Answer all that apply)



Question 32: Other

- Cannot answer
- Endometrial cytology/MRI
- MRI
- Endometrial cytology
- Regular breast cancer test (MMG)

Question 33. Number of facilities that responded: 77
What is the interval for surveillance carried out at your facility?

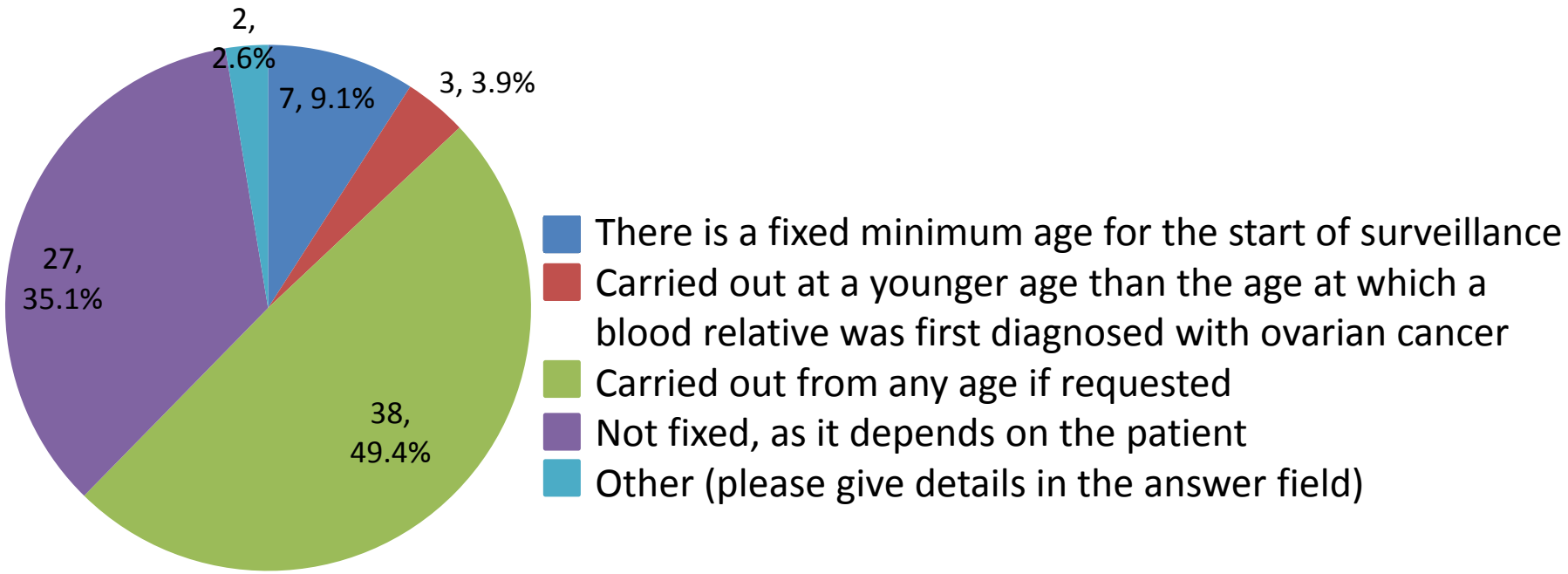


Question 33: Other

- Interval decided according to wishes of patient
- For surveillance at the patient's expense, even every 3 months would be acceptable if requested
- Every 3–6 months

Question 34. Number of facilities that responded: 77

What is the minimum age of patients for whom surveillance is started if requested?

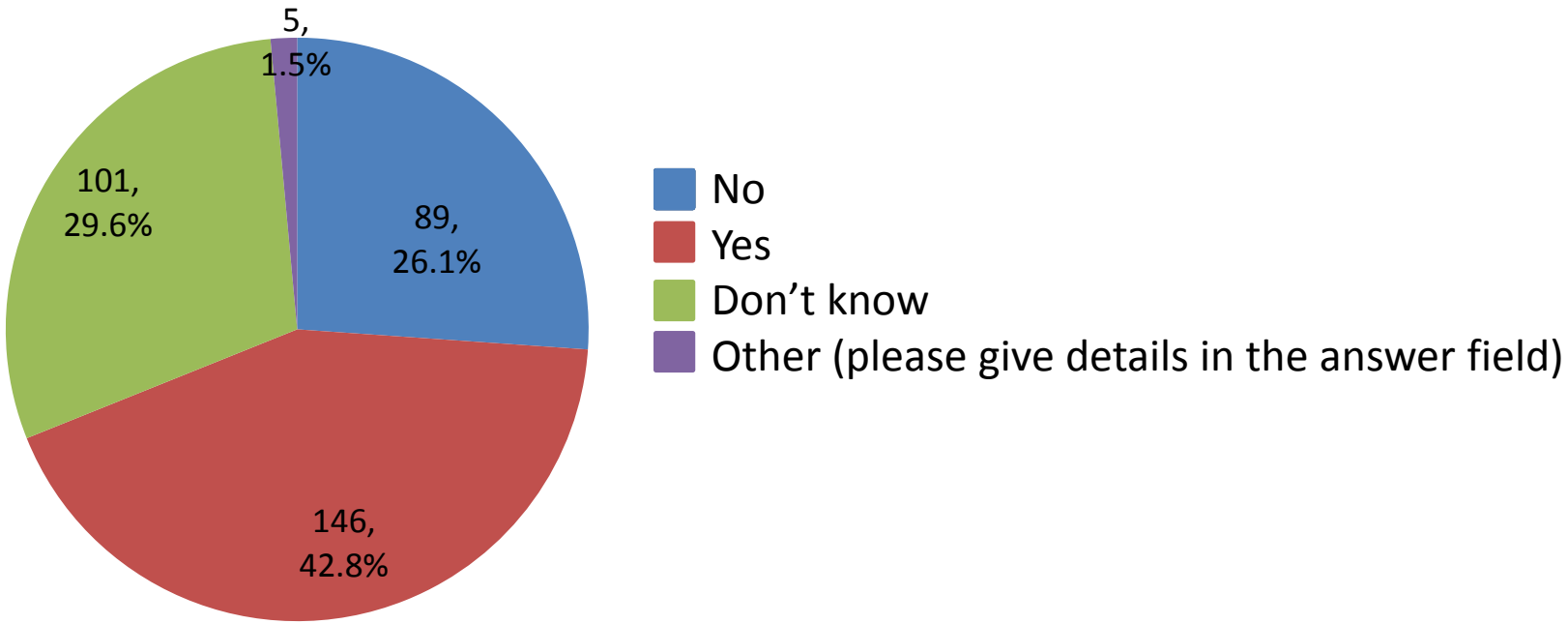


Question 34: Other

- I would like this to be indicated in the guidelines
- Surveillance not carried out yet, so don’t know

Question 35. Number of facilities that responded: 341

Do you think HBOC surveillance should be covered by health insurance?



Question 35: Other

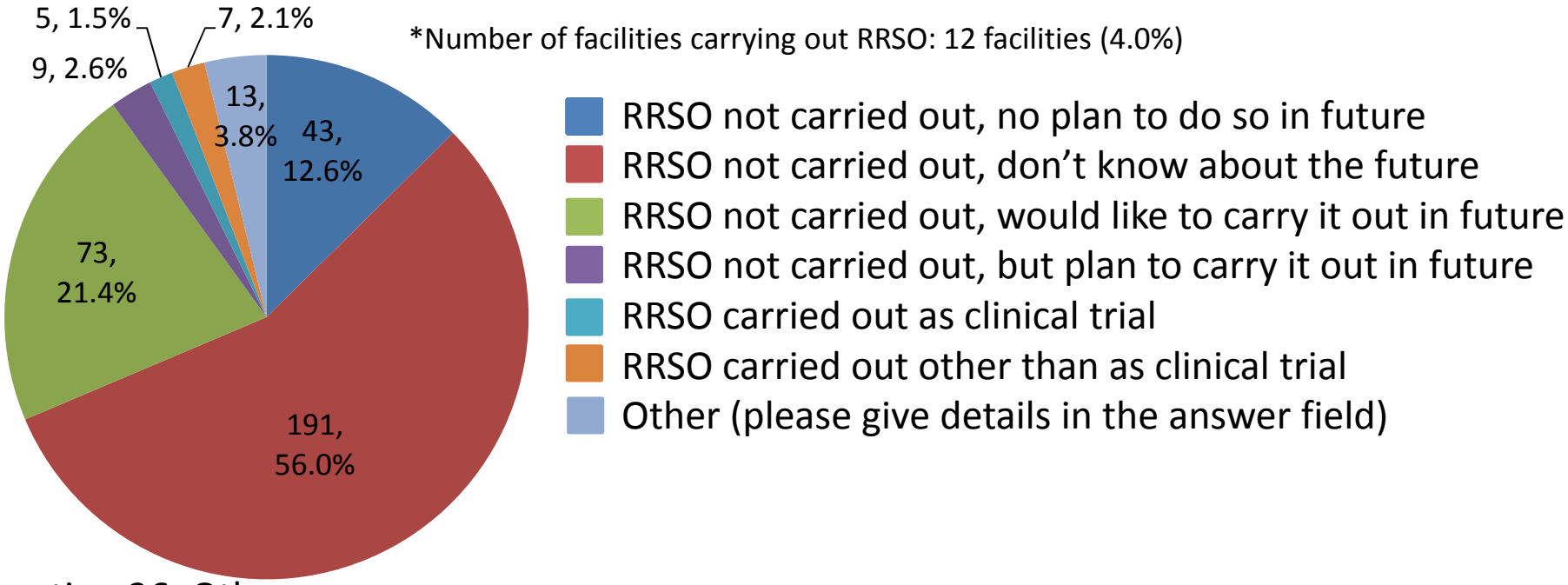
- Not offering treatment for HBOC
- Should be treated the same as surveillance of other genetic disease patients
- Surveillance should be covered by insurance under the name suspected ovarian cyst / ovarian cancer
- For patients confirmed by genetic testing there is a clear risk, and surveillance should be covered by insurance

  Surveillance at patient's expense is appropriate for high-risk patients.
- It should be covered if a national system of counseling and treatment, etc. is put in place

Questions 36–44: Questions regarding ovarian cancer risk-reducing surgery for HBOC patients

Question 36. Number of facilities that responded: 341

Bilateral risk-reducing salpingo-oophorectomy (RRSO) for reduction of the risk of ovarian cancer in ovarian cancer-free HBOC patients at your facility



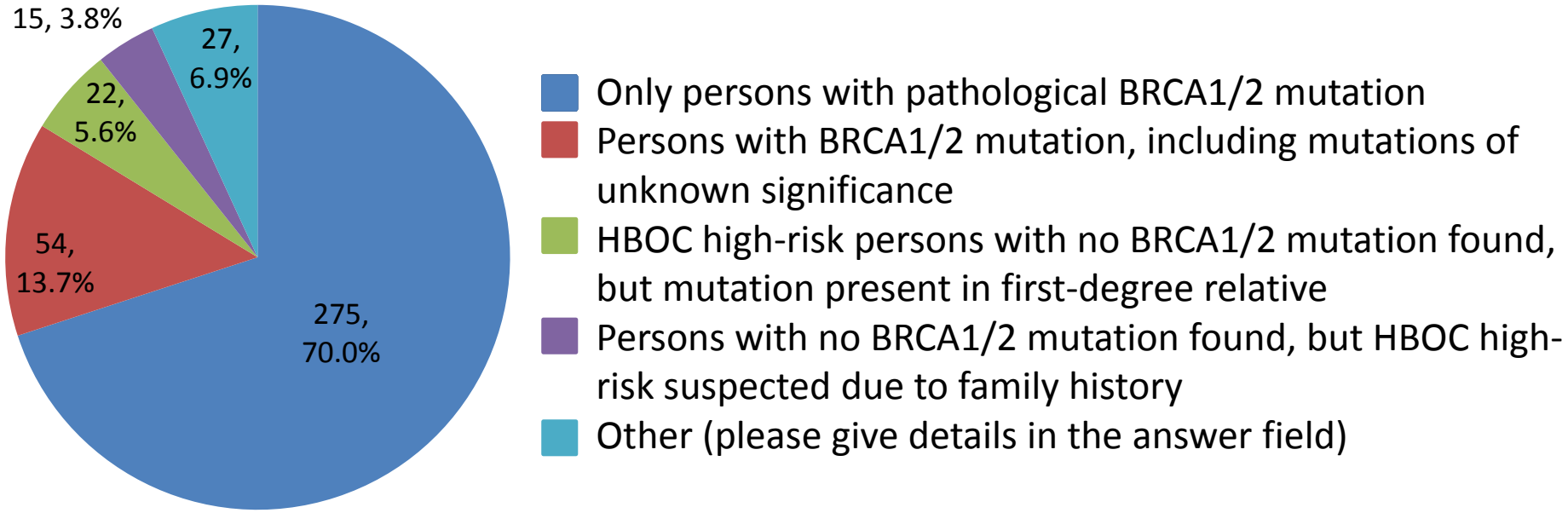
Question 36: Other

- In accordance with the guidelines
- There has been a case of peritoneal cancer occurring two years after RRSO
- Has been carried out on the basis of uterine myoma, uterine prolapse diagnosis
- Ethical review for each case (clinical research)
- Request to other facility
- Facilities with a genetic consultation system or approved facilities should be established to carry out RRSO

etc.

Question 37. Number of facilities that responded: 341

If your facility carries out RRSO for HBOC, who is eligible? For facilities that do not carry out RRSO for HBOC, who would be eligible if the facility were to carry it out? (Choose all that apply)

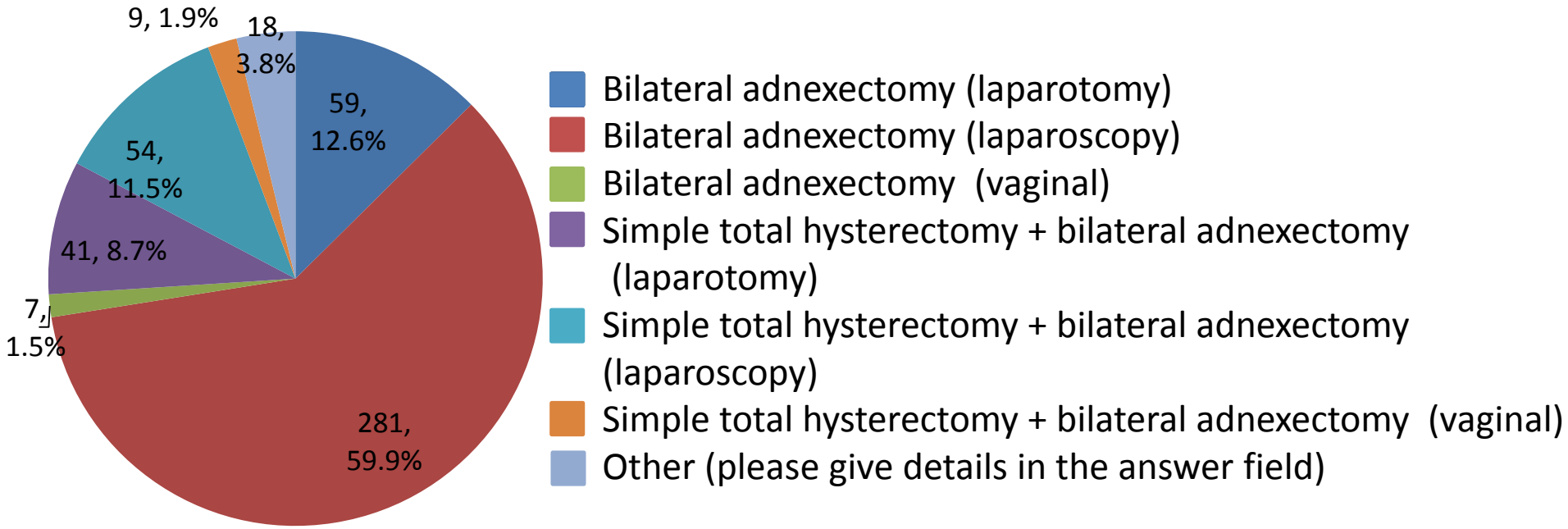


Question 37: Other

● Patient's wishes taken into account ● No intention of carrying out RRSO ● Don't know
● Cannot decide at present who would be eligible
● If indicated by the guidelines, would consider response ● Will consider it once it has been resolved legally
● Determine whether to carry out RRSO after consideration of many factors, such as age, patient's wishes, etc.
● The expression "BRCA1/2" is acceptable for insurance, but in actual clinical practice, BRCA1 and BRCA2 are not treated equally
● Mutations that are presently of unclear pathological significance but are diagnosed as having a high possibility of being pathological.
etc.

Question 38. Number of facilities that responded: 341

For facilities that carry out HBOC risk-reducing surgery, what is the procedure? For facilities that do not carry it out, what would be the procedure if it were carried out? (Choose all that apply)



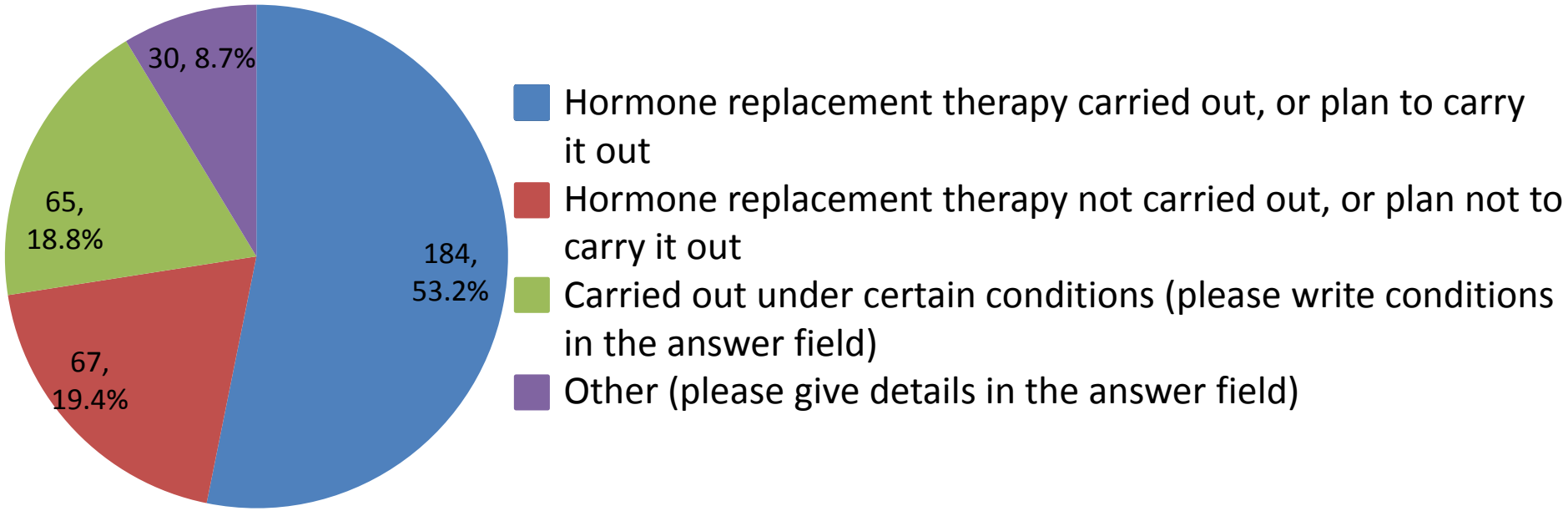
Question 38: Other

- Don't know
- Depends on patient's wishes, age, childbirth, and other factors
- Treatment of the uterus determined through counselling
- Bilateral salpingectomy (laparoscopy)
- In any case, a method that allows sufficient pathological samples to be made up to and including the fallopian tubes is essential
- Response would be examined if indicated by the guidelines
- No intention of carrying it out
- Only salpingectomy for a premenopausal patient in her 30s, oophorectomy for a patient in her 40s or after childbirth

etc.

Question 39. Number of facilities that responded: 341

Is hormone replacement therapy given after HBOC risk-reducing surgery? (Choose all that apply)



Question 39. Summary of responses to “Carried out under certain conditions”

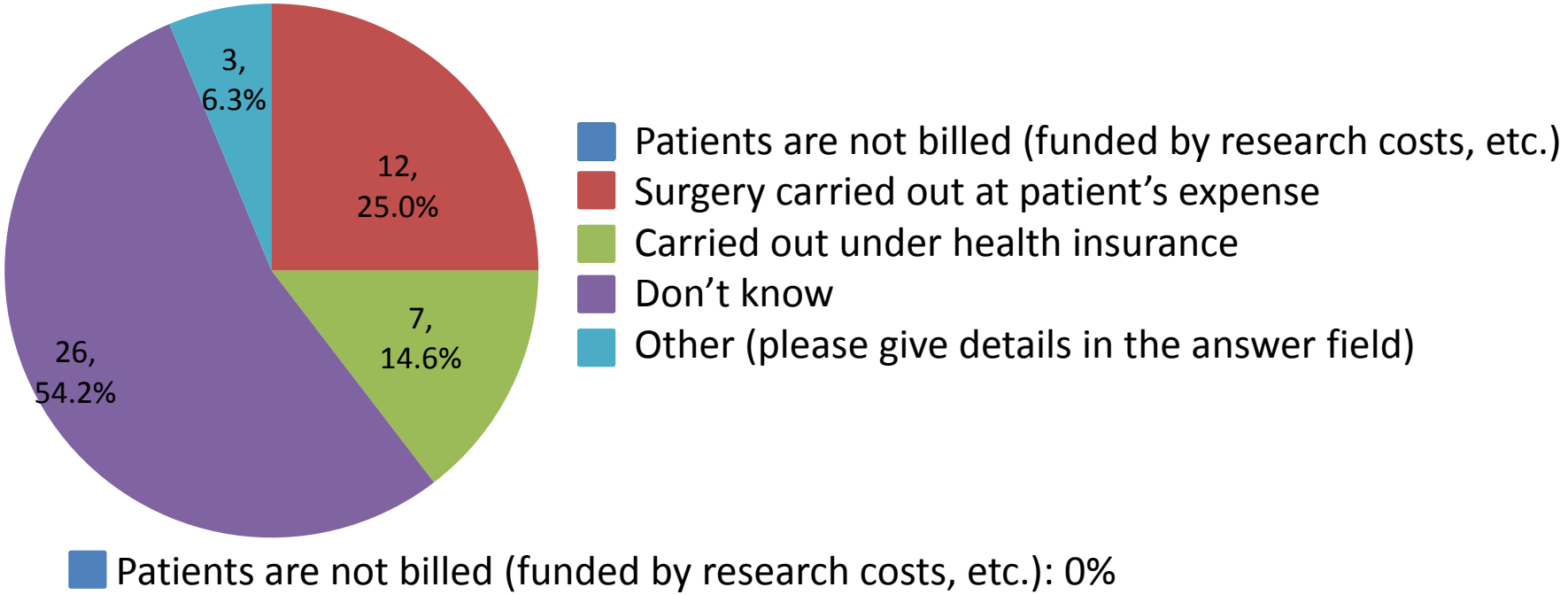
● Consideration given to age ● Age under 44 ● If age 45 or less, carried out until age 50 ● Until age 50 ● Until menopause ● Short term, until menopause
● If it has advantages ● If it is requested ● On condition that the patient is capable of understanding ● If there are no contraindications ● If there are no other risks ● Hormone replacement therapy should be carried out in cases that require it ● Comprehensive decision that includes patient’s condition, complications, smoking, etc.
● If permission given by doctor of breast department (if after breast cancer surgery) ● Limited to those with no history of breast cancer ● Should be avoided with breast cancer if there is hormone sensitivity ● If there are no pathological changes at all that could suggest breast tumor ● With breast cancer patients, consideration is given to the tissue type and the amount of hormone receptors, etc. and consultation held with breast department ● Not carried out on persons with history of breast cancer. Carried out on persons with no history of breast cancer if there are no contraindications ● Only after double mastectomy
● If there are severe ovarian deficiency symptoms ● Can be carried out (for short period) after period is decided according to severity of ovarian deficiency symptoms ● Determined according to pre-surgery hormone values ● If there is no improvement in symptoms and the risk of osteoporosis cannot be avoided with treatments other than HRT ● It is carried out if there is no improvement in symptoms with other treatment, with a maximum treatment period of 5 years
● Estrogen replacement therapy desirable after hysterectomy
● Carried out with regular breast cancer screening, uterine cancer screening ● In cases with no occurrence of breast cancer
● In accordance with the guidelines
● Don’t know

Question 39: Summary of responses to “Other”

● Cannot make a uniform decision, it varies according to the situation
● If ERT is indicated due to osteoporosis, etc., consideration is given to the amount, but long-term administration is examined
● Even if surgery alone is carried out, requests are made to specialist facilities for subsequent checkups
● Response is examined if indicated in the guidelines. ● Cannot make a judgement because there are many other items that have not been clearly established ● Policy undecided
● Not carried out ● Progesterone replacement not given

Question 40. Number of facilities that responded: 48

If HBOC risk-reducing surgery is carried out at your facility, how are the fees paid?

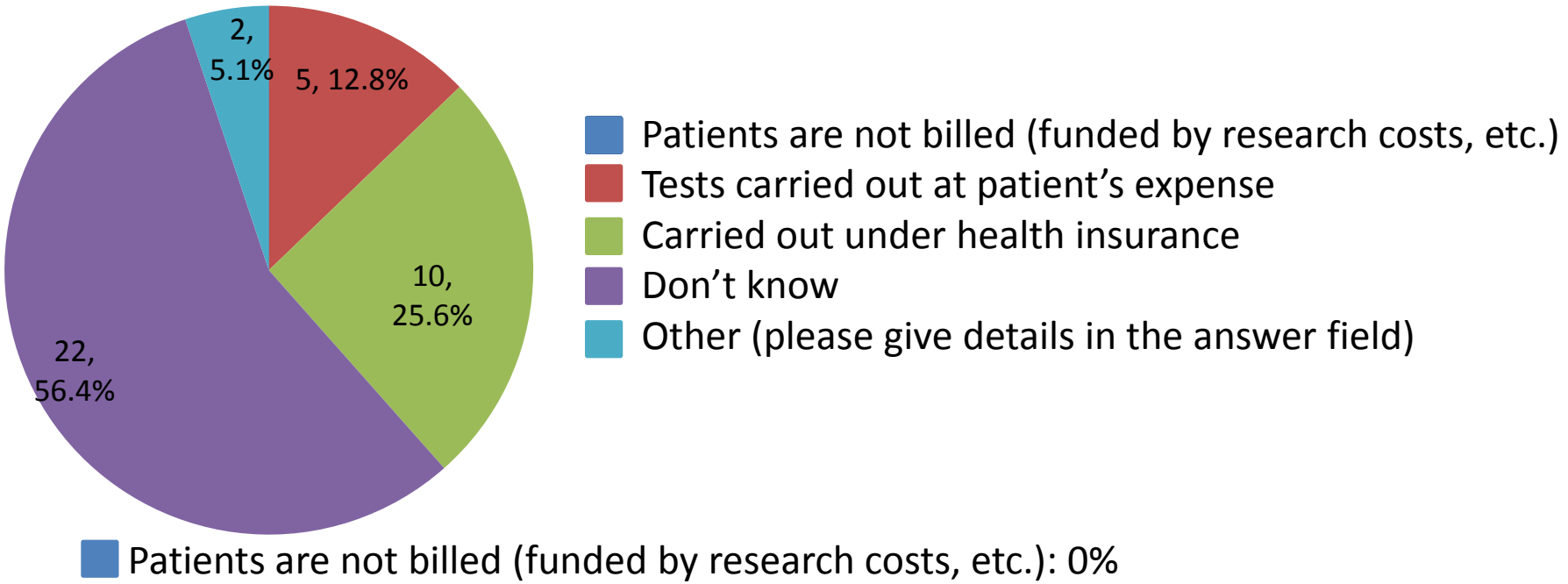


Patients are not billed (funded by research costs, etc.): 0%

Question 40: Other

- Plan to carry out surgery at patient's expense when necessary

Question 41. Number of facilities that responded: 40
How are pre-RRSO tests at your facility paid for?



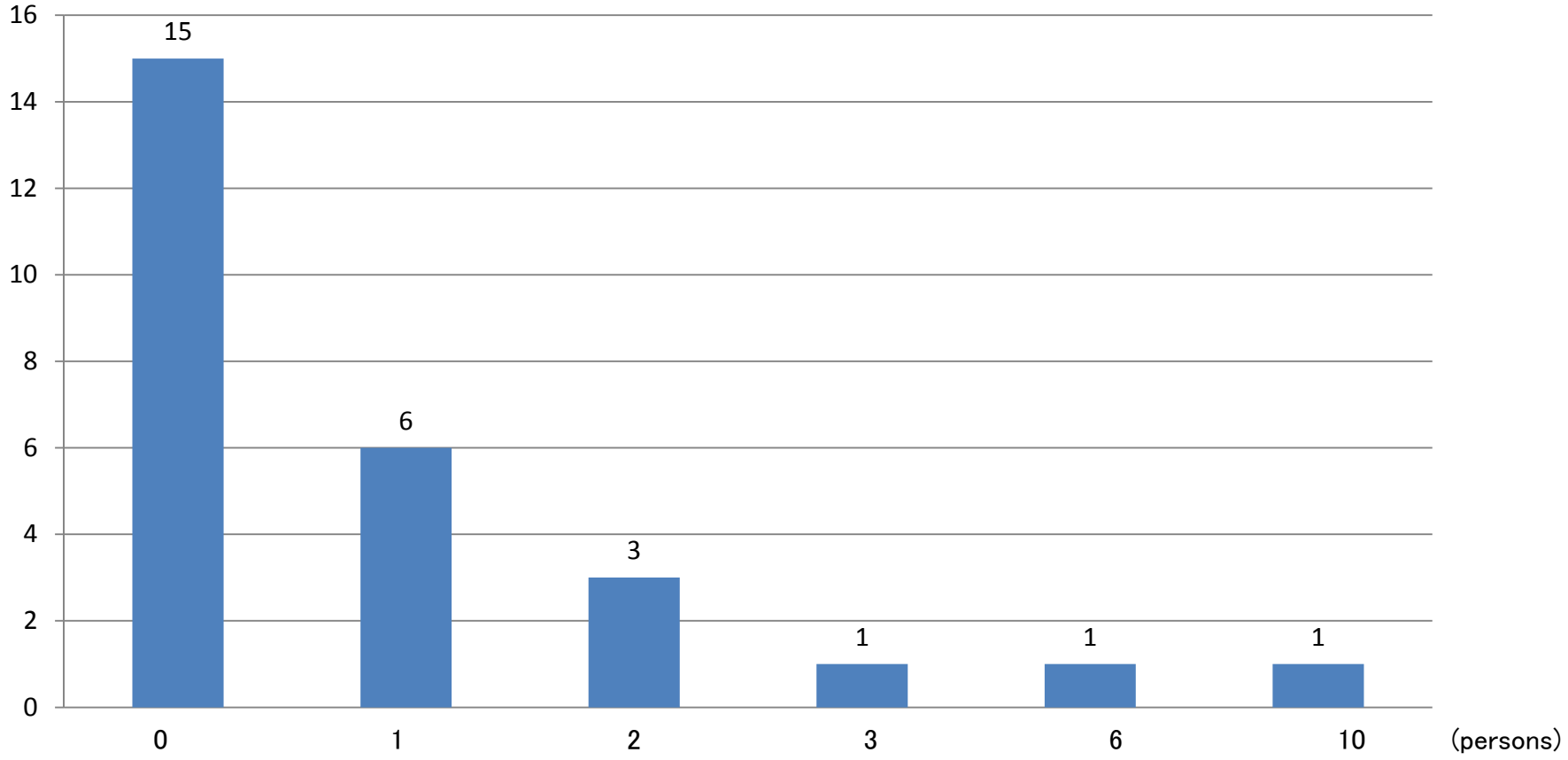
Patients are not billed (funded by research costs, etc.): 0%

Question 41: Other

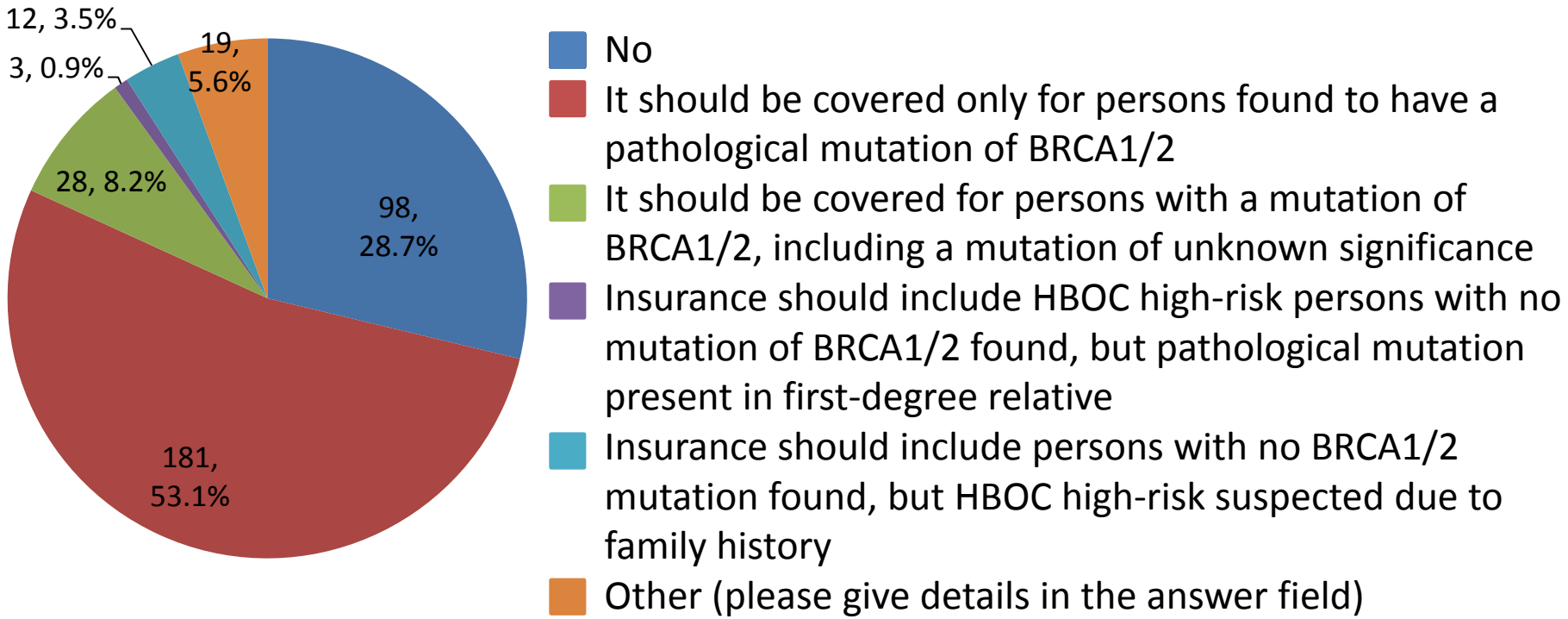
- Case by case
- Plan to carry tests out at patient's expense when necessary

Question 42. Number of facilities that responded: 27

If your facility carries out RRSO, about how many patients a year are treated?



Question 43. Number of facilities that responded: 341
Do you think RRSO should be covered by health insurance?



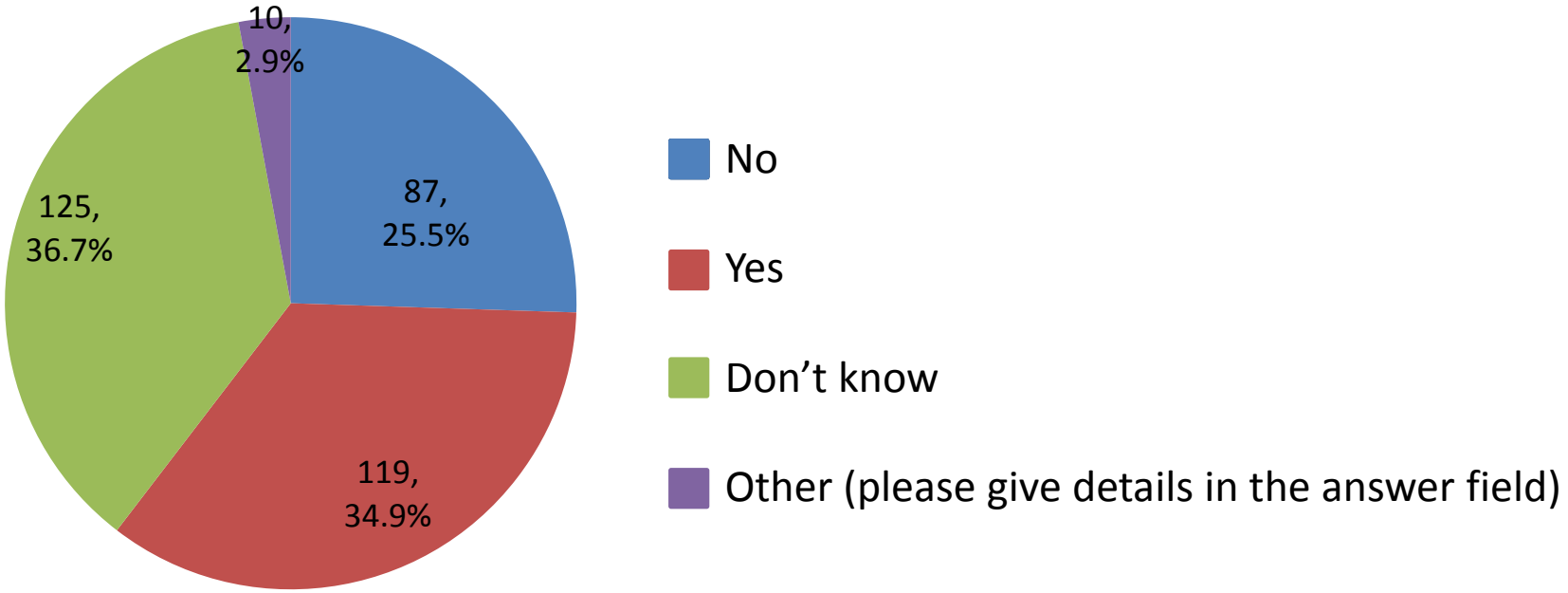
Question 43: Other

- Don’t know. Insurance not used at present for prevention.
- Do not have a clear answer
- Insufficient information for differentiation

etc.

Question 44. Number of facilities that responded: 341

If RRSO were designated as advanced medical care, would you want your facility to be an implementing medical institution?

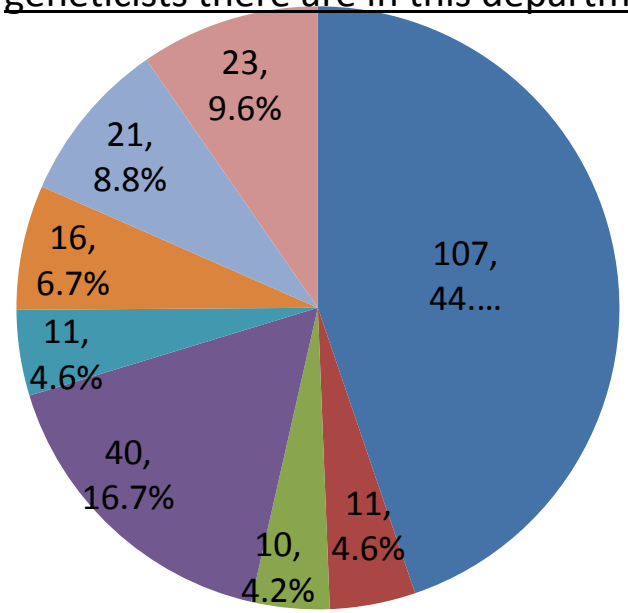


Question 44: Other

- Depending on the conditions
- If indicated in the guidelines, would consider the response
- Would want to have a greater understanding before examining it
- Not offering treatment for HBOC
- Would like to carry it out if a genetic counselling system, etc. could be put in place
- Do not necessarily want to, but would apply on the basis of the current status of the local genetic disease treatment department.

However, if a system was established with a comprehensive ethics review, we would like RRSO to be carried out in the vicinity in a facility with a reliable pathology department.

Question 45. Number of facilities that responded: 137
Please answer to the best of your knowledge.
This question is for facilities that answered in Question 9 that there are 1 or more geneticists certified by the Japan Society of Human Genetics or the Japanese Society for Genetic Counseling. Check the department of the primary specialty of this/these clinical geneticist(s), and write how many clinical geneticists there are in this department.



- Obstetrics/gynecology department (A)
- Breast surgery department (B)
- Other surgery department (C)
- Pediatric department (D)
- Neurology department (E)
- Other internal medicine department (F)
- Clinical genetics treatment department (G)
- Other departments (otolaryngology, etc.; please write freely in the answer field) (H)