

2017

ANNUAL REPORT

ASTRO



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EXECUTIVE SUMMARY

The ASTRO Accreditation Program for Excellence (APEX®) was created to support quality improvement in radiation therapy and evaluate the clinical programs provided by radiation oncology practices, focusing on quality and safety of radiation oncology practices. Radiation oncology practices accredited by APEX:

- Undergo an objective, external review of radiation oncology programs, policies and processes based on evidence and consensus-based standards;
- Demonstrate respect for protecting the right of patients and responsiveness to patient needs and concerns; and
- Adopt procedures to encourage safety and quality of care.

In 2017, the second full calendar year of the APEX program, 64 new facilities initiated the application process. Among the 2017 applicants, one-third were from an academic setting and two-thirds were from a private or community-based setting, indicating the program's suitability for supporting quality improvement in both academic and private practice. As of December 2017, 102 main facilities and 105 satellites from 32 states, and the District of Columbia, had commenced the program. The distribution of APEX practices mirrors the national distribution of radiation oncology centers, with concentrations in densely populated areas.

APEX accreditation involves four major phases; submitting an application, completing a self-assessment, having a facility visit, and then receiving a determination. Completion of the self-assessment components varied widely among applicants, and time to complete is detailed further in this report. The most consistently challenging areas of the self-assessment were related to documentation of the comprehensive patient evaluation and timeout procedures, and intra-disciplinary peer review.

A total of 51 facilities received their final determinations. For the facilities that received their accreditation, two-thirds of these facilities received full accreditation, and one-third were provisionally accredited, with two facilities completing an appeal process. All provisionally accredited facilities received full accreditation after a corrective action plan was completed and reviewed. No practices were denied accreditation.

As with 2016, in 2017 the survey team sent to a main facility visit included a radiation oncologist and medical physicist. For several of the larger facilities, a third surveyor was sent (radiation therapist) to assist with the process.

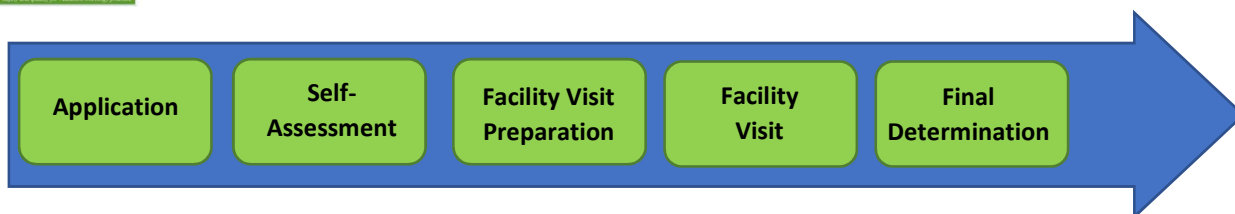
As part of the APEX program's ongoing quality improvement, the Practice Accreditation Committee ratified changes in 2017 to four evidence indicators, upgrading them to Level 1 requirements. These revisions to the standards were the first program changes since the program launched in 2015. The changes related to the requirements for:

- [Simulation directive](#)
- [Treatment planning directive](#)
- [Radiation oncologist on-site supervision](#)
- [Patient safety event reporting](#)

Functional changes to the APEX portal were addressed in the second half of 2017, including that all three sections of the self-assessment may be simultaneously for facilities to complete, and the expiration of medical records within the portal after six months if they have not been submitted.

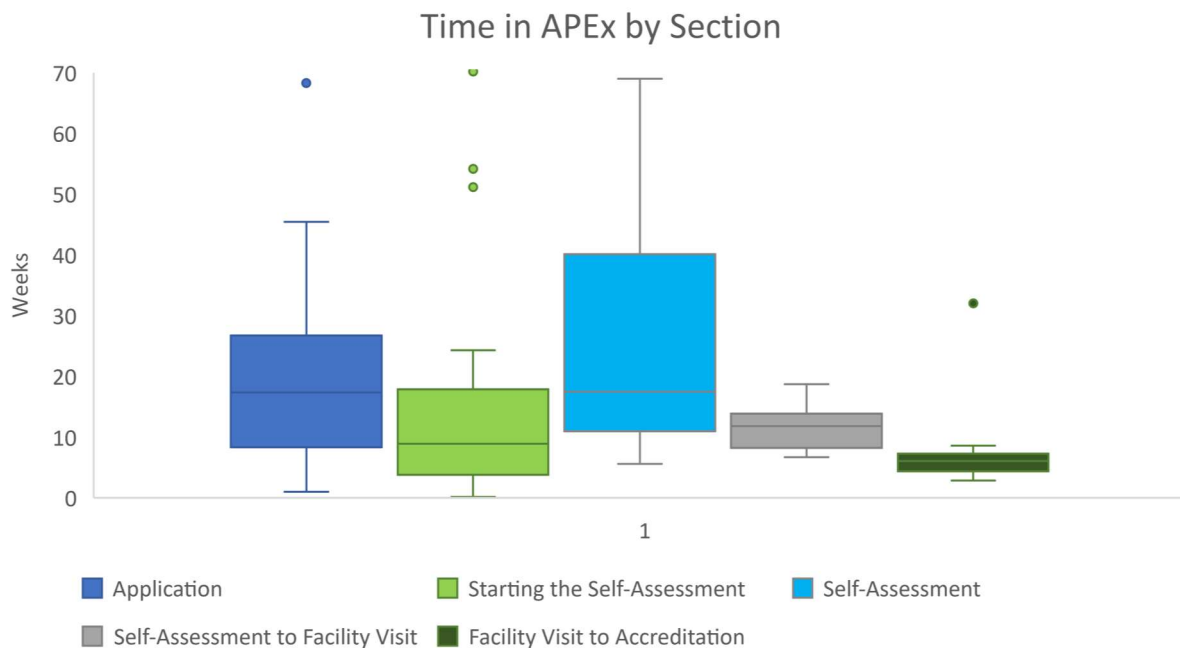


APEX PROGRAM



APEX accreditation involves four major phases; submitting an application, completing a self-assessment, having a facility visit, and receiving a determination. The time to complete each phase varied widely among applicants, and time spent completing both the application and the self-assessment are driven by the facilities themselves.

It was noted that practices allow a median time of 7 weeks to lapse between gaining access to the program and when engagement within the self-assessment section commences. This period is described in the chart below as “Starting the Self-Assessment” and reflects a hesitation to initiate the APEX process. ASTRO strongly recommends starting the self-assessment as soon as the practice has access to it.



The self-assessment takes the longest time to complete and is the most rigorous part of the program, as a facility performs a self-reflection of their compliance with the program’s evidence-based indicators. During the self-assessment each practice may have a differing focus area due to the practice’s unique quality improvement requirements.

Most practices completed the medical record section of the self-assessment with a single attempt, while the document upload section often required more than one attempt. The most challenging areas of the self-assessment continue to be the evidence indicators addressing standardized documentation for the comprehensive patient evaluation and timeout procedures, as well as the intra-disciplinary peer review requirement that each profession participates in a learning activity with their peers.



APPLICATION

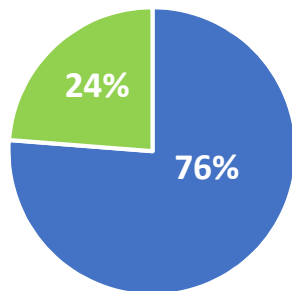
At the end of 2017, APEX had a total of 207 facilities participating in the program, of which 64 facilities had initiated the application process during the year. The growth for the first half of the year was steady but increased around the time of the 2017 ASTRO Annual Meeting in September.

Practices were one-third from an academic setting and two-thirds from a private or community-based setting. This demonstrates an accreditation program with broad appeal that is servicing all radiation oncology departments irrespective of their practice settings.

Over half of the APEX applicants were a single facility practice or were part of a network but elected to participate independently. Nearly a third of applicants consisted of a main facility with one or two satellites, and the remaining applicants were larger networks with a main facility and three or more satellites.

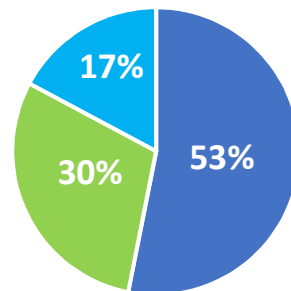
Practice Type

Breakdown by Facility Type



■ Private ■ Academic

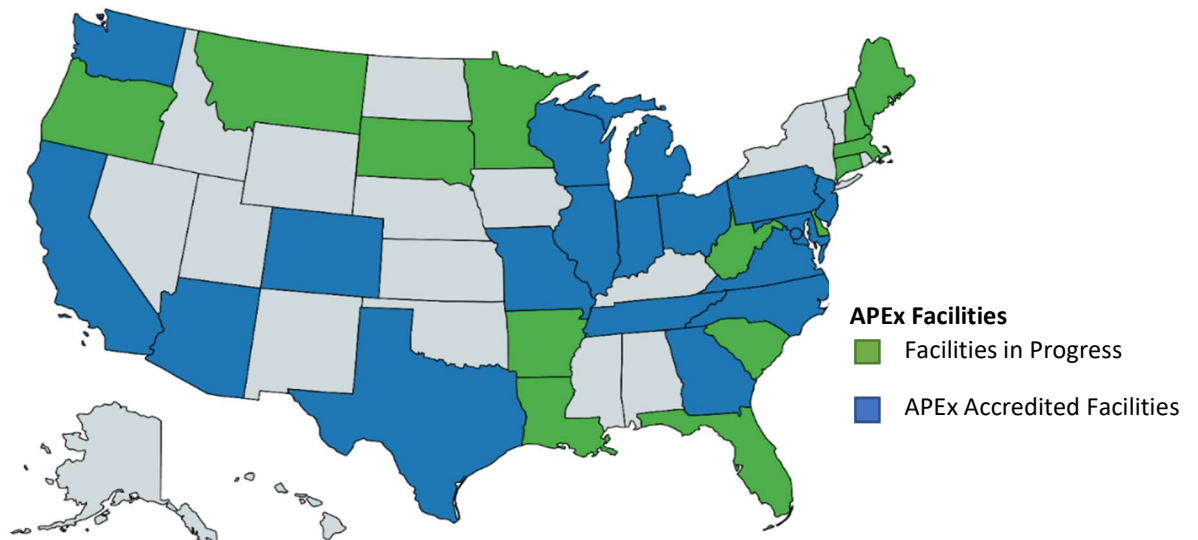
Number of Facilities per Application



■ Single ■ Main + 1-2 Satellites ■ Main + 3+ Satellites

Geography

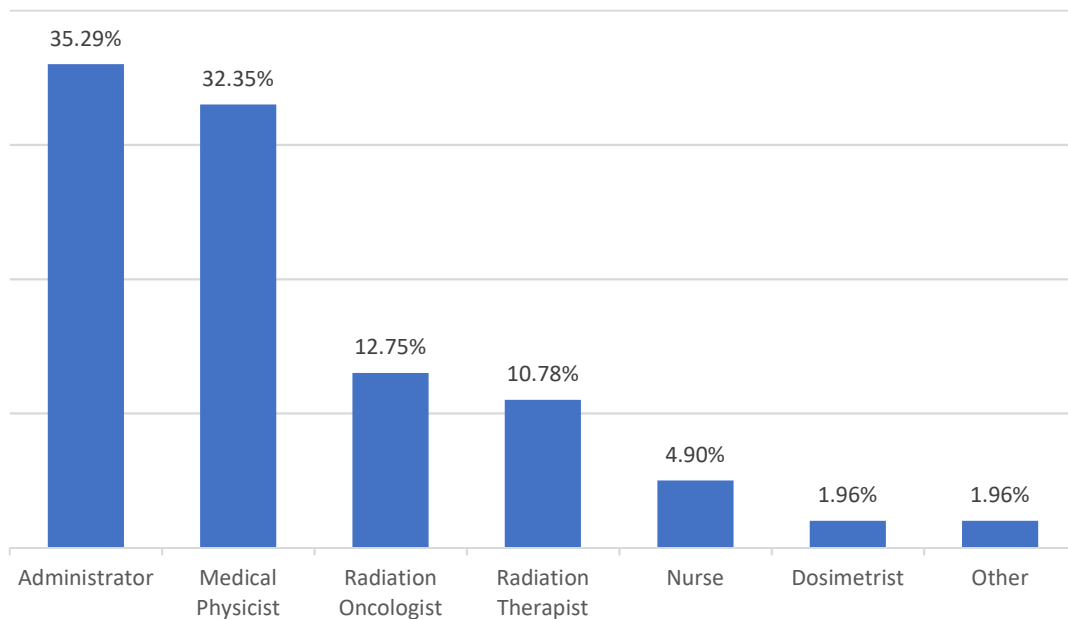
The location of practices in the APEX program (both accredited and in progress) as of December 2017, is displayed below, with participating facilities located in 32 states and the District of Columbia. The distribution of facilities closely paralleled the distribution of US radiation oncology centers with higher concentrations in densely populated areas.



APEX Administrator

The APEX administrator initiates the APEX application in the web-based portal, has sole data input rights throughout the application and, though others may input data during the self-assessment, is responsible for final submission of each section of the self-assessment. Medical physicists and practice administrators were most likely to initiate the accreditation process within the APEX portal, though ASTRO recognized the significant role of the radiation oncologist in the decision-making process and championing the accreditation program at their facility.

Profession of Primary Applicant



During the self-assessment phase, access for additional staff members is available and encouraged, as the program is a review of the entire radiation oncology team and processes. Participation in the self-assessment across the practice promotes teamwork and more effective quality improvement activities.



SELF-ASSESSMENT

For each Radiation Oncology Practice (ROP), only the main facility completes the self-assessment, though the satellites should be involved during the self-assessment process across the network. The self-assessment component of APEX had largest duration variance in 2017 and the time for each section to be completed varied considerably as demonstrated below.

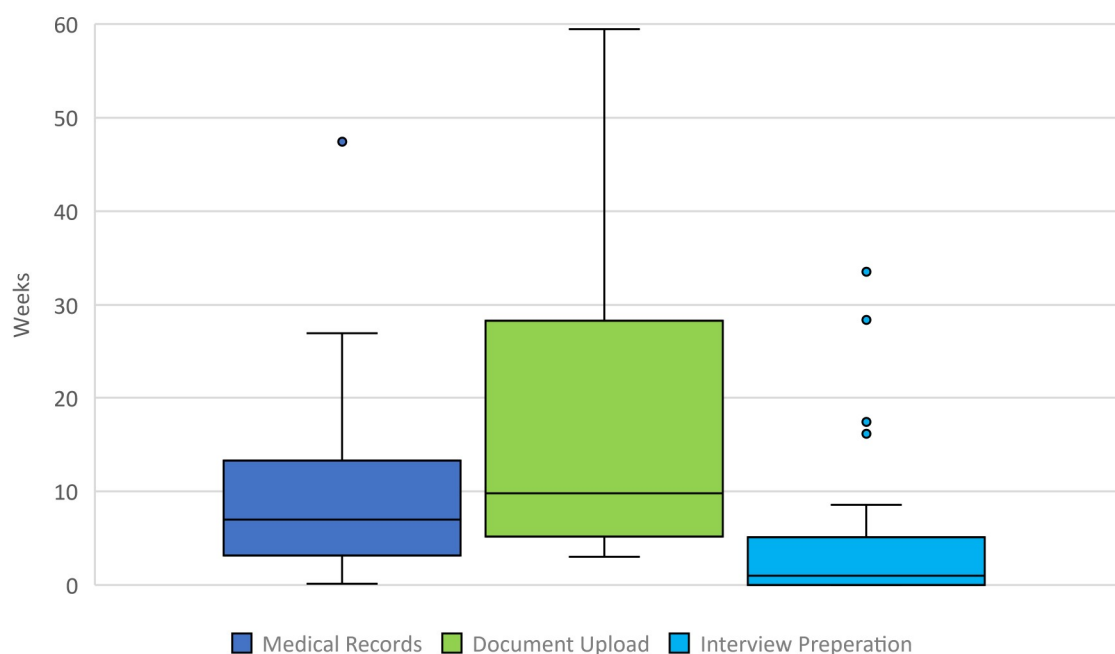
In 2017, a facility took as little time as one day to complete the medical record section, with the median time to complete this section being seven weeks. It is anticipated this will be further reduced through improved self-assessment tools such as a more robust Self-Assessment Guide, teleconferences, and short videos available for facilities in preparation for the medical record section.

One facility spent only three weeks completing the document upload section, with the median time for a practice to complete and submit documents for review being nine weeks. Current initiatives for improving the document upload process include adding sample documents to the APEX resources, consolidating the number of uploaded documents and providing a quality management toolkit.

In comparison, the interview preparation section was completed in a much shorter time frame than the medical record review and document upload sections. Facilities can print these questions out for use as a tool to prepare staff for the types of questions they will encounter during the facility visit.

Time to complete each section of the self-assessment

Medical Records Review	Median time seven weeks
Document Uploads	Median time nine weeks
Interview Preparations	Median time one week

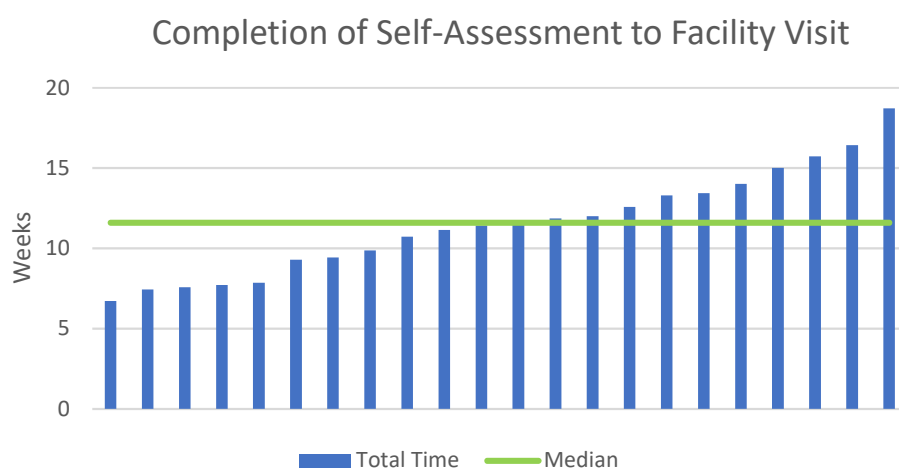




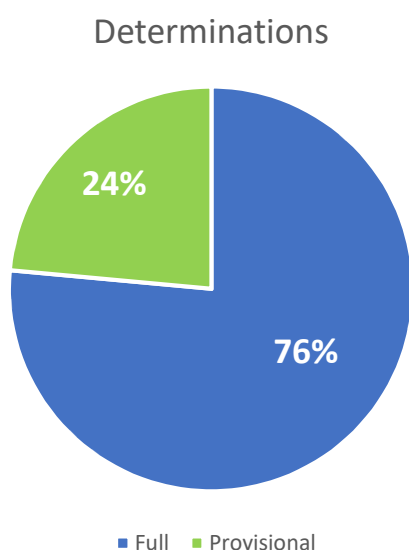
FACILITY VIST AND DETERMINATION

In 2017, facility visits were conducted at a median timeframe of 12 weeks after the completion of the self-assessment. All facility visits were conducted on a date selected from the facility's first preference of dates, with only one exception where a facility had to select additional dates. All facilities were encouraged to have a Monday and/or Friday among their potential dates as weekend travel allows surveyors the convenience of having less disruption to their own work schedules.

Time from self-assessment completion to facility visit date	Median time 12 weeks
Time from facility visit date to receiving the determination	Median time five weeks



Percentage of Full Accreditations and Provisional Accreditations

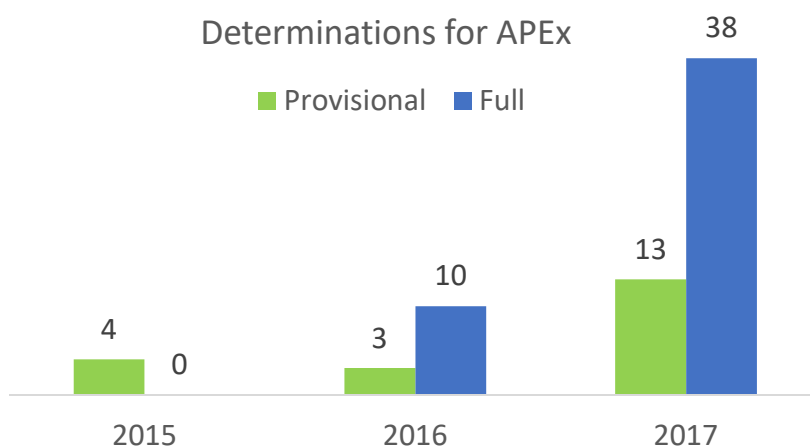


In 2017, 51 facilities received their final determinations, 11 from facilities visit conducted in the fourth quarter of 2016 and 40 facility visits conducted in 2017. All facilities received their determinations between four and six weeks after the facility visit was completed.

Of the facility receiving determinations by the end of the year, two-thirds received full accreditation and one-third were provisionally accredited and required a corrective action plan to be implemented before accreditation was granted. No facility was denied accreditation.

Determinations by year

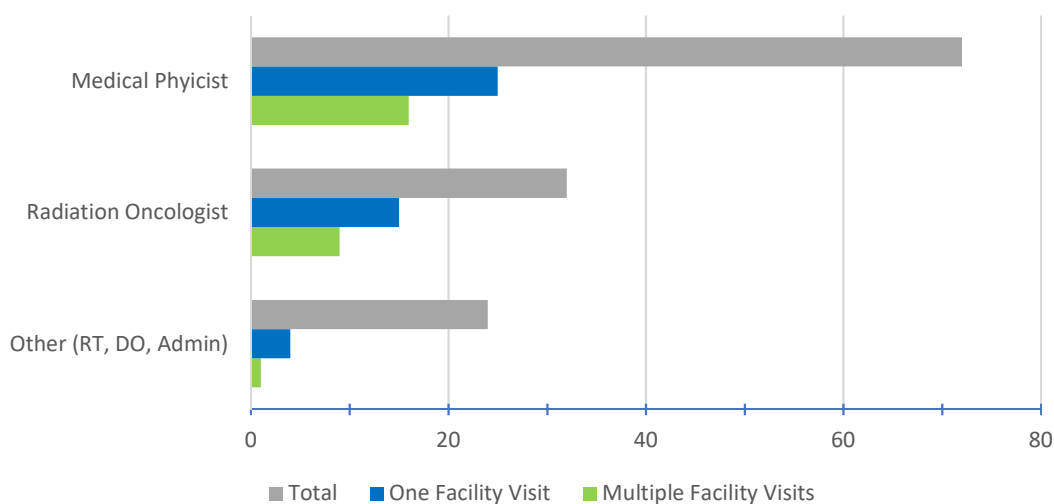
The APEx program allows for quality improvement to be addressed during the self-assessment and enables facilities to successfully implement process change prior to completing the program. This transparency and continued development for facilities provides an accreditation platform based on visible initiatives. This enables the practice to achieve consistent and high-quality care from all members of the radiation oncology team. The program continued to grow with more facilities receiving accreditation each year.



SURVEYORS

As of December 31, 2017, 128 radiation oncology professionals successfully completed the training and are a part of the APEx surveyor pool. This included 72 medical physicists, 32 radiation oncologists, and 24 other professions.

From the total pool of available medical physicists, a third have been on a single facility visit and 16 have performed multiple surveys. From the radiation oncologist surveyor pool, half have been on one facility visit and nine have performed multiple surveys.





QUALITY IMPROVEMENT INITIATIVES

ASTRO's Practice Accreditation Committee updated the compliance level of some APEX evidence indicators from Level 2 to Level 1 at the end of 2017.

EI #	Description of the Evidence Indicator
2.1	A simulation procedure is conducted according to the written simulation directive of a radiation oncologist.
2.2	The treatment planning process is based on a documented, patient-specific planning directive that guides treatment planning staff and defines target volume and normal tissue goals and constraints.
6.1	Safe staffing plan: Specification of the number of each professional discipline required to be on-site, directly involved in patient treatment (including at least two radiation therapists per patient when the EBRT is being delivered) or available remotely during operating and non-operating hours (consistent with ASTRO's May 2016 publication "Medicare's Physician Supervision Requirements").
7.3	When a patient safety event occurs: <ul style="list-style-type: none">• The ROP undertakes an immediate review, with the goal of understanding underlying factors and acting to prevent future occurrences.• The ROP complies with the institutional, state, local and national requirements for reportable patient safety incidents.

The review process demonstrated an on-going commitment to the APEX program's own quality improvement and these revisions to the standards were the first changes since the program launched.

As the APEX program continues to grow, the Practice Accreditation Committee and ASTRO staff will routinely review the requirements of evidence indicators and evaluation criteria in a continual process to improve quality and safety initiatives within the program.



CONCLUSION

APEX increased its market share of accrediting radiation oncology facilities in 2017. Findings from the program will potentially highlight variances in the delivery of radiation oncology care, inform educational offerings, and assist with quality measures development. ASTRO's commitment to improving the quality and safety of patient care in our specialty is unwavering.