

Licensing In Transition: What's New In the Accelerators and Class II Facilities Division (ACFD)



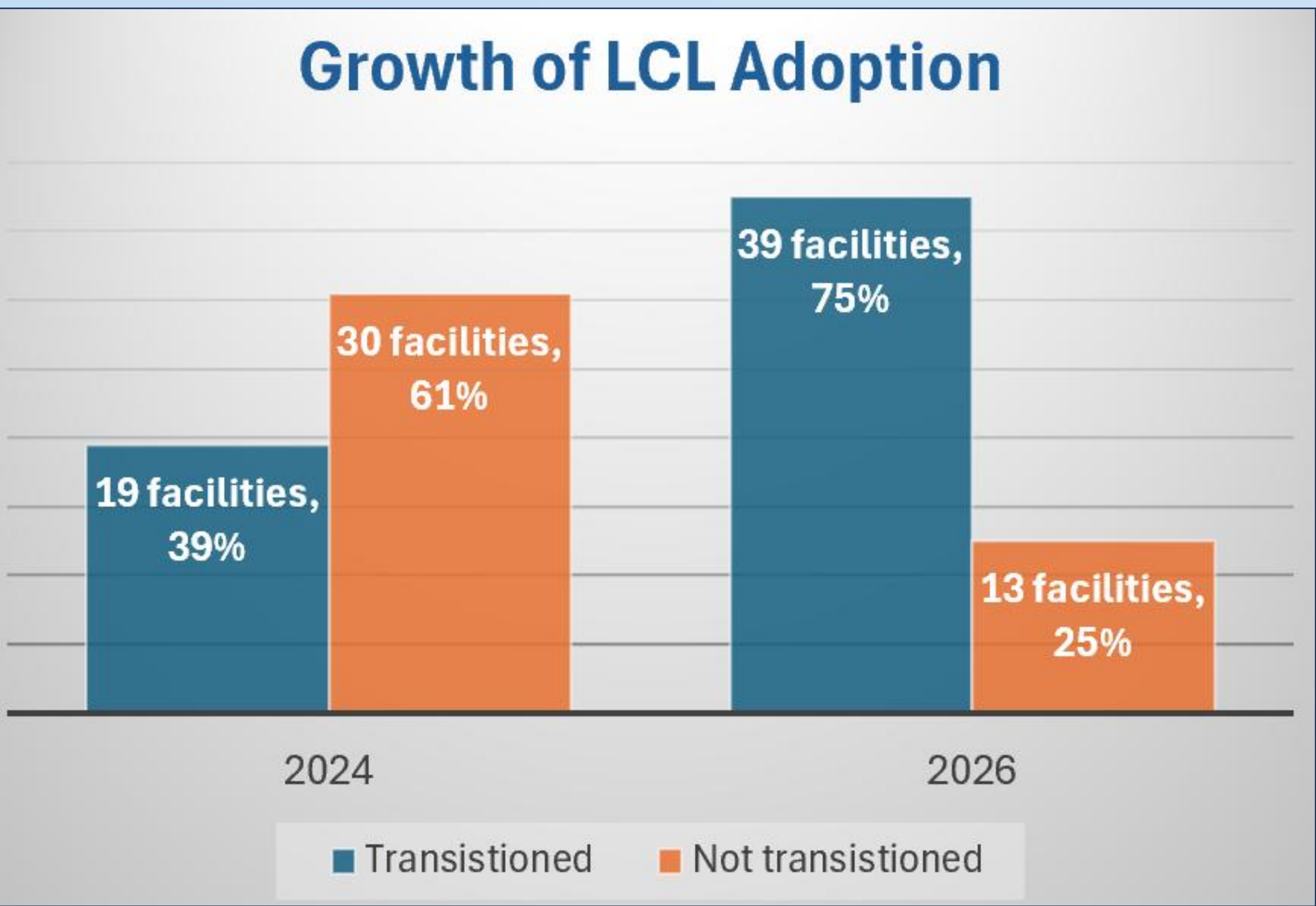
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Background

ACFD introduced the lifecycle licence (LCL) to streamline equipment replacements for radiotherapy facilities by consolidating operating, commissioning and decommissioning licence phases into a single licence. Facilities with a LCL can replace eligible equipment provided the approved safety case is respected without requiring separate licensing actions for each phase in the equipment's lifecycle. This licence type reduces administrative and regulatory burden for both licensees and the CNSC while maintaining an equivalent level of safety through the submission and review of equipment replacement reports.

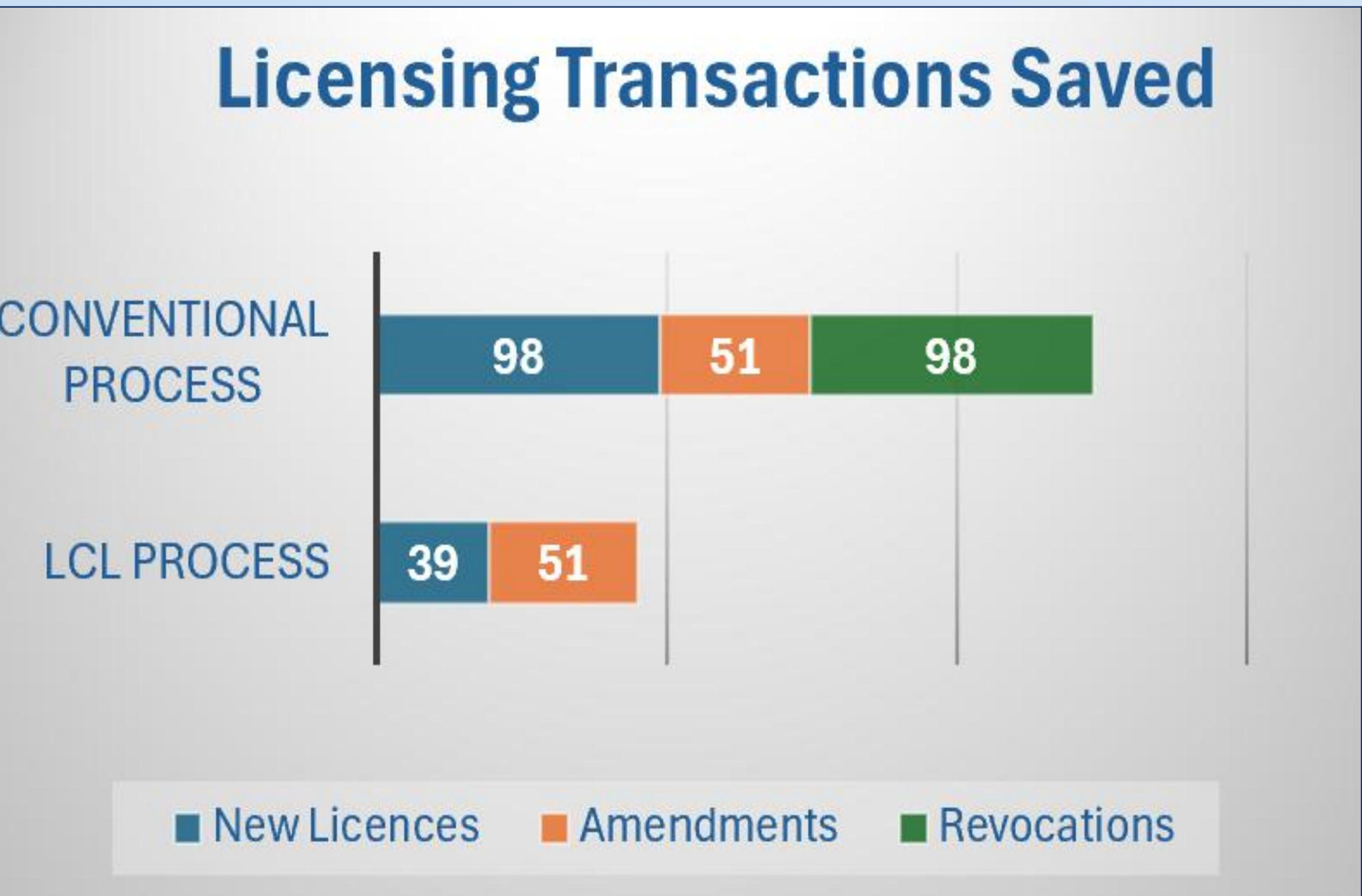
Regulatory Benefits

Adoption of the Lifecycle Licence



As of June 2026, **75%** of the 52 cancer centers in Canada have transitioned to a LCL representing a **36% increase** since 2024.

Licensing Transactions Saved



The LCL has eliminated the need for separate licences for each stage in the lifecycle of the equipment saving a total of **157** interactions since it's inception.

Simplified Licensing Process

Conventional:



LCL:



Evolution of the Lifecycle Licence

Spring 2021:

LCL introduced for conventional (c-arm) medical linacs only.

Fall 2022:

First LCL expansion to include ring-based gantry medical linacs.

Fall 2024:

Second LCL expansion to include high-dose rate (HDR) brachytherapy remote afterloaders.

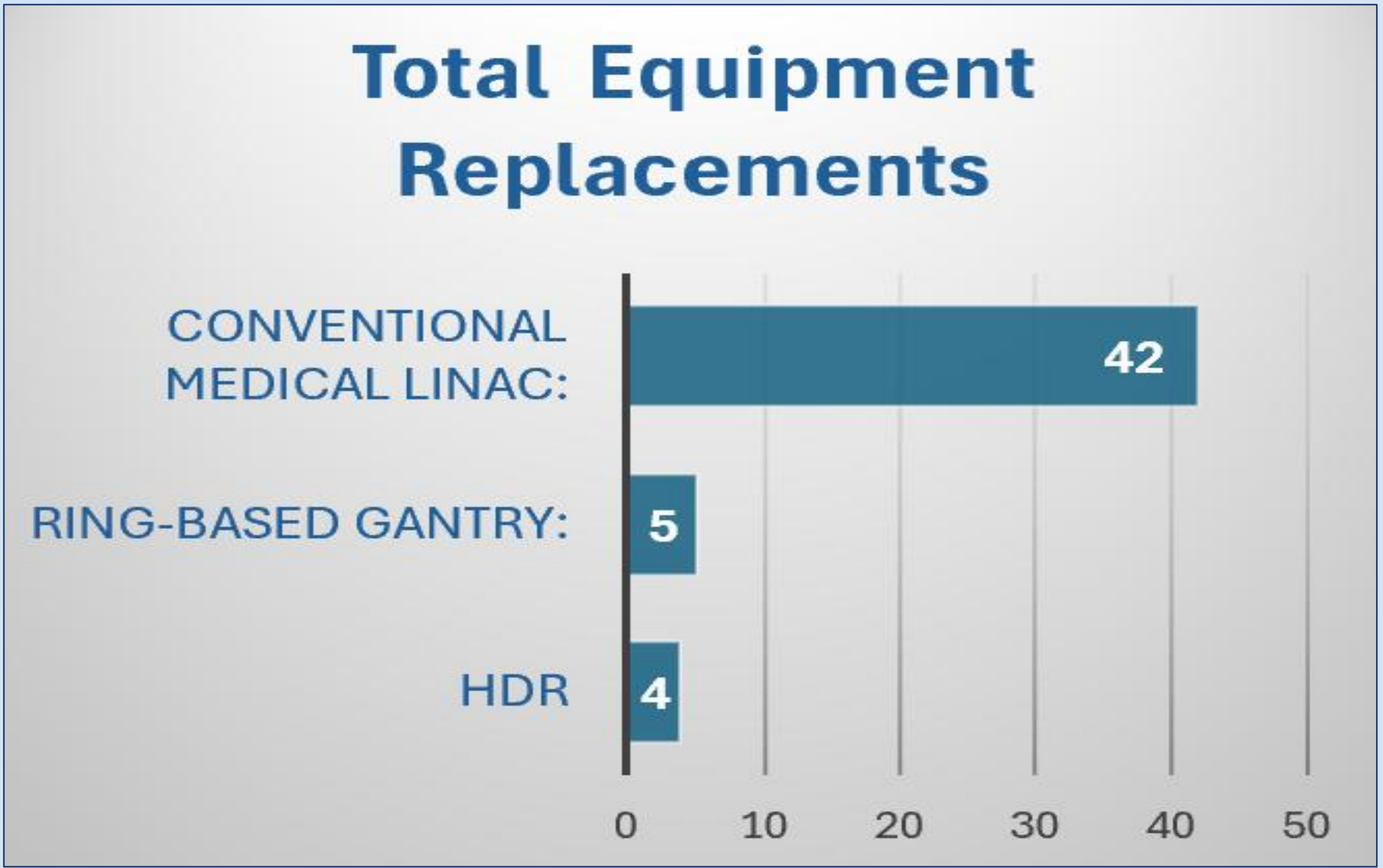
Rules & Results of Implementation

When can equipment be replaced under an LCL?

Replacements can proceed under the LCL process provided the replacement remains within the approved safety case, including:

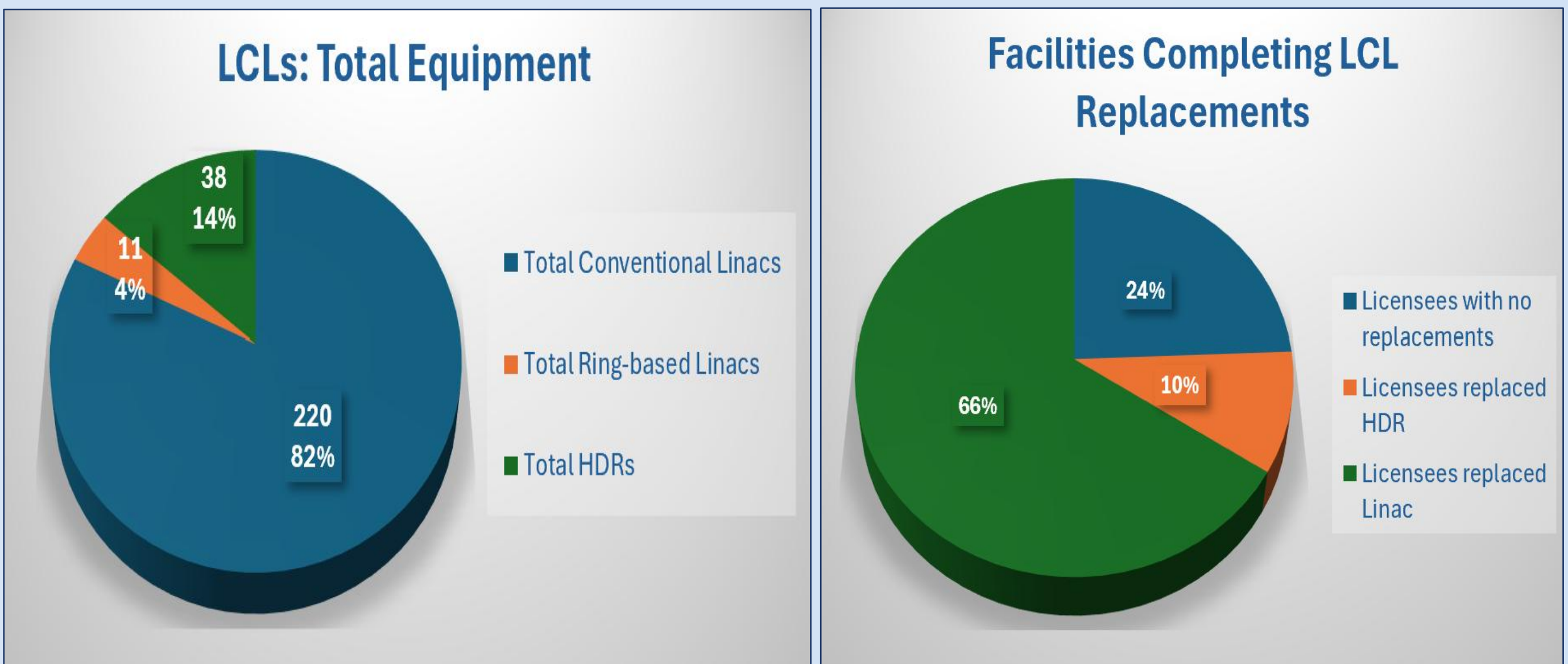
- ✓ No changes to facility shielding
- ✓ No changes to the safety systems
- ✓ No exceedance of the maximum beam energy (linacs)
- ✓ No changes to the isocenter location (linacs)
- ✓ No changes to the isotope used and maximum activity (HDR)

Equipment Replacements Completed



Since 2021, **51** equipment replacements have occurred under the LCL across 3 different prescribed equipment categories.

Implementation Results



41% (14/34) of LCL licensees with HDR remote afterloaders are authorized to replace their LCL.

Replacement trends are influenced by equipment reaching the end of its service life, when equipment became eligible under the LCL and differences in equipment inventories across LCL licensees.

Practical Guidance & Future Licensing Improvements

Equipment Replacement Report Reminders

- **HDR:** remote afterloaders can be replaced under the LCL regime by submitting a HDR commissioning procedure.
- **Survey:** Survey results must be submitted for **all** applicable worst-case conditions (e.g., max beam energy and max dose rate, or max source activity) Separate survey results may be required for each condition. These surveys are **required for all prescribed equipment** that's replaced.
- **Dose Assessment:** Include the estimated annual doses for each survey location based on the survey results.
- **Instrumentation:** Provide the details for all radiation survey instruments used, including instrument **type** and **calibration date**.
- **Disposal:** Include how and where the equipment and any relevant components were dispositioned (e.g., kept to decay, returned to the manufacturer, etc.)
- **Submission:** Submit the equipment replacement report **within 30 days of the initial commissioning** source exposure or beam on.

What's Next?

- **Decoupling the core licence from the *Appendix: Licence Documents*** so that changes to Appendix Documents alone will no longer require a full licence amendment, thereby expediting these licence changes.
- **Increasing flexibility of authorization of locations** where nuclear substances are used and stored by implementing locations tables where nuclear substance use is permitted, eliminating the granular individual source listing for each room.

Conclusion: The increase in LCL adoption has seen an exponential reduction in the number of required regulatory interactions while continuing to provide a safe and efficient framework for equipment replacements.