



**RO•ILS<sup>®</sup>**

RADIATION ONCOLOGY  
INCIDENT LEARNING SYSTEM

*Sponsored by ASTRO and AAPM*

**CLARITY**

**PSO**

A Patient Safety Organization

# AGGREGATE DATA REPORT

**Quarter 1, 2021**

**January 1 - March 31, 2021**

**Patient Safety Work Product**

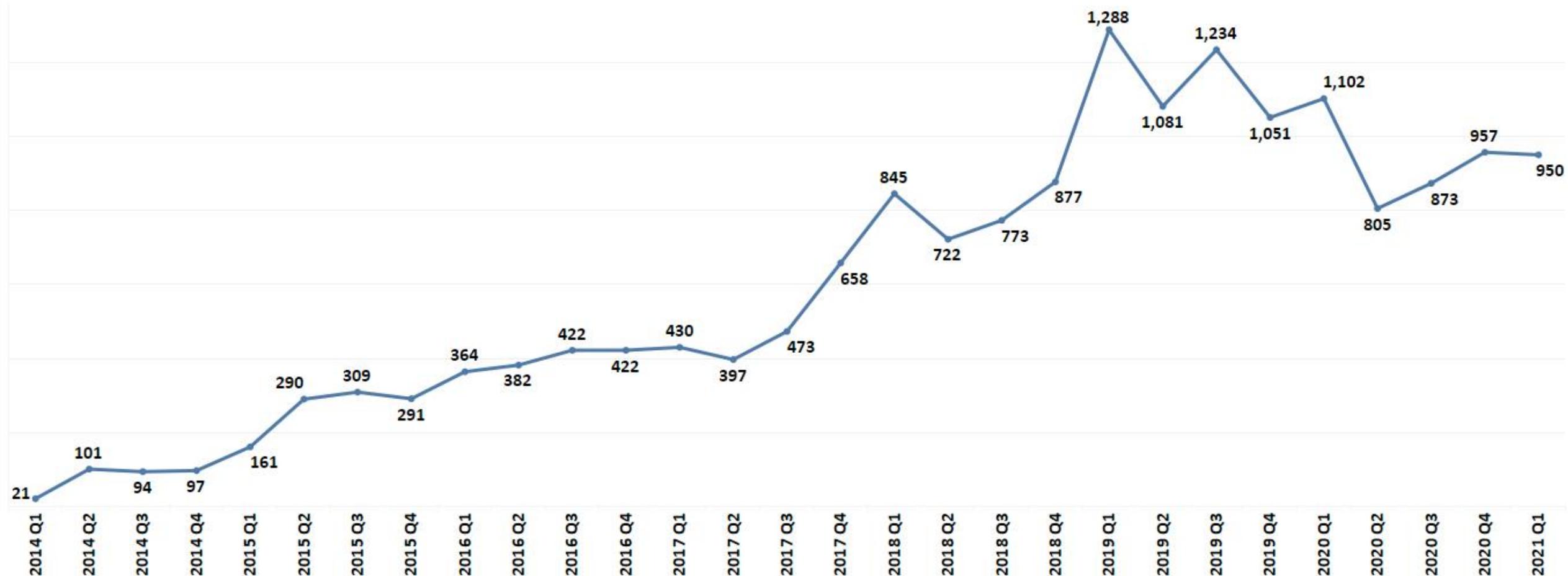
CLARITY PSO, a Division of Clarity Group, Inc.  
8601 W Bryn Mawr Ave • Suite 110 • Chicago, IL 60631  
T: 773.864.8280 • F: 773.864.8281 • [www.claritypso.com](http://www.claritypso.com)

## Aggregate Report Card

The timeframes utilized throughout this report are based on the timepoint of event submission (i.e., when the event was initially entered into the RO-ILS Portal, when the “Submit Event” form was completed). The national aggregate database only includes events that have been reviewed and reported to the PSO, which occurs after submission. All information in this report represent data in the national database. For this reason, the amounts provided for previous timeframes may change as older events are reviewed and reported to the PSO.

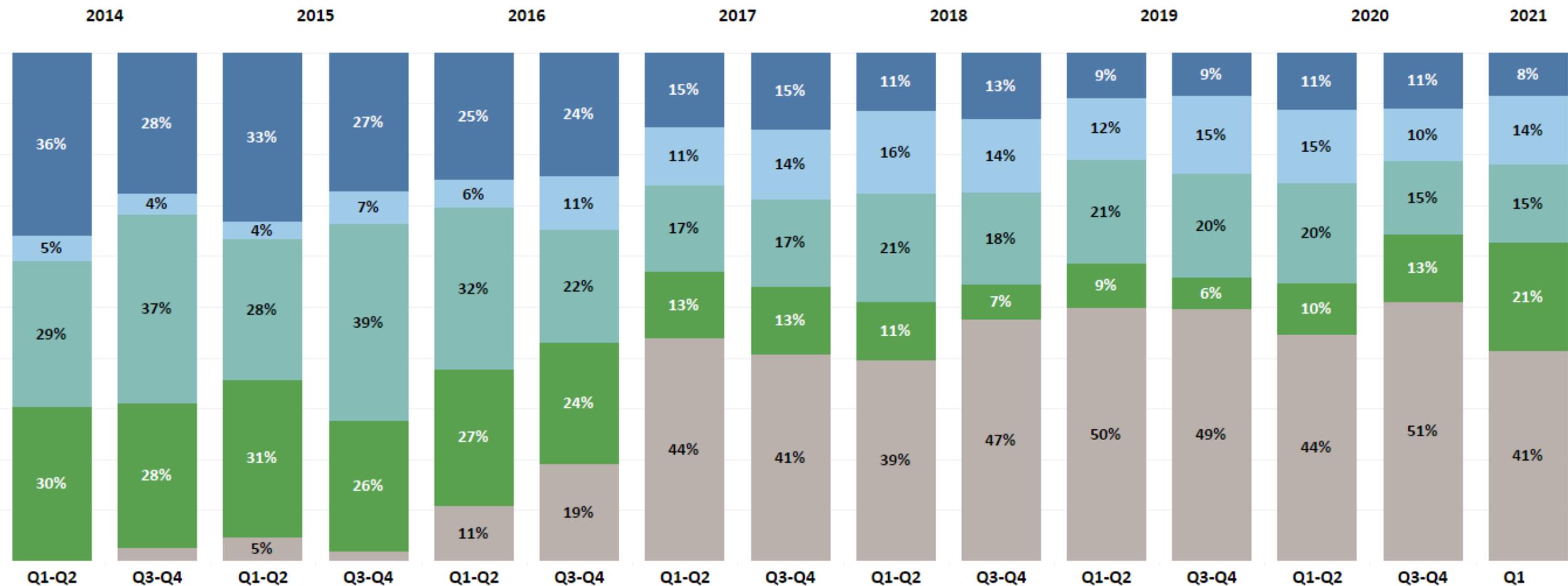
METRIC	Q4 2020	Q1 2021	AGGREGATE HISTORICAL SUM
<b>Total Number Of Events</b>	957	950	17470
Therapeutic Radiation Incident	109	80	2394
Other Safety Incident	98	129	2177
Near Miss	146	146	3594
Unsafe Condition	136	204	2323
Operational/Process Improvement	468	391	6982
<b>Most Commonly Identified Workflow Step Where Event Occurred</b>	Treatment Planning 37% (351/957)	Treatment Delivery Including Imaging 31% (292/950)	Treatment Planning 31% (5478/17470)
<b>Most Commonly Identified Workflow Step Where Event was Discovered</b>	Treatment Delivery Including Imaging 37% (355/957)	Treatment Delivery Including Imaging 31% (294/950)	Treatment Delivery Including Imaging 30% (5301/17470)
<b>Most Commonly Identified Treatment Technique</b>	IMRT/VMAT 37% (353/957)	IMRT/VMAT 41% (394/950)	IMRT/VMAT 31% (5379/17470)
<b>Most Commonly Identified Dose Deviation for Therapeutic Radiation Incidents that Did Not Effect Multiple Patients</b>	≤ 5% maximum dose deviation to target 93% (52/56)	≤ 5% maximum dose deviation to target 78% (32/41)	≤ 5% maximum dose deviation to target 85% (1032/1211)

### Aggregate: Total Number of Events Reported to PSO by Quarter Submitted



This graph displays how many events were submitted, reviewed, and reported to the PSO per quarter based on the date of submission.

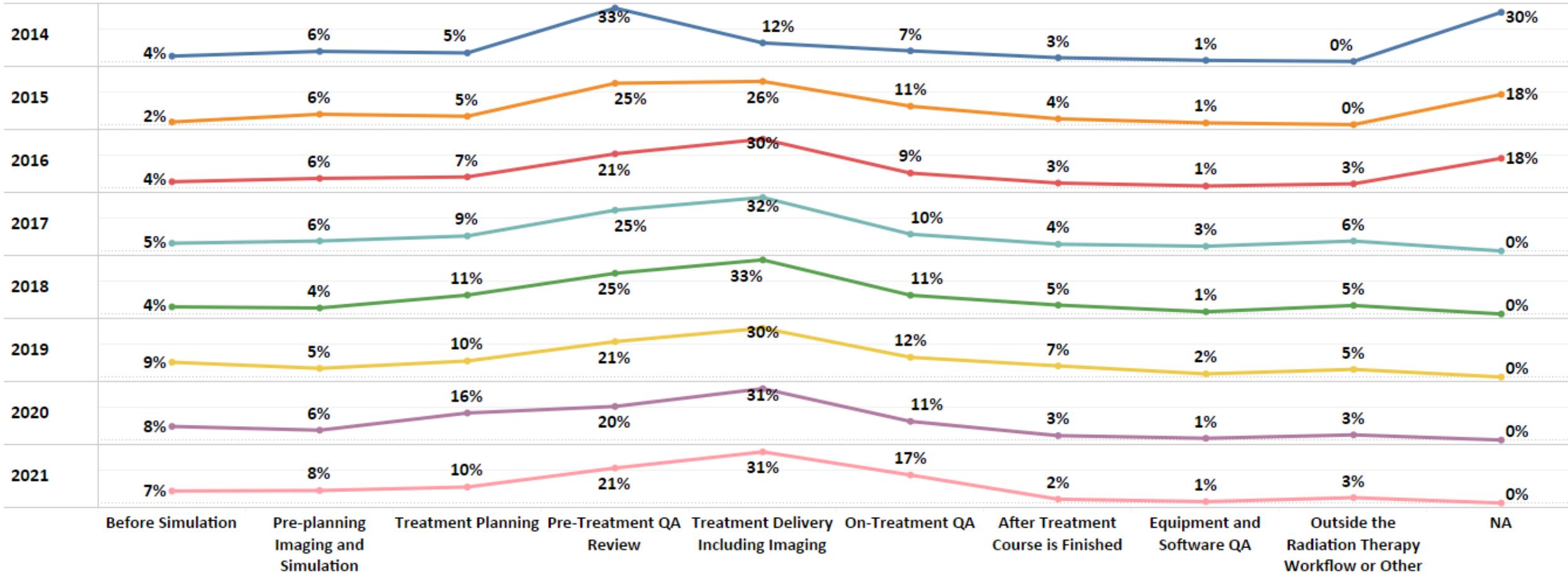
## Aggregate: Event Classification



This graph depicts the distribution of data for data element #104 (*Event\_Classification*) on a bi-annual basis. The "Operational/Process Improvement" answer option became available in the Q3 2016 data element update.

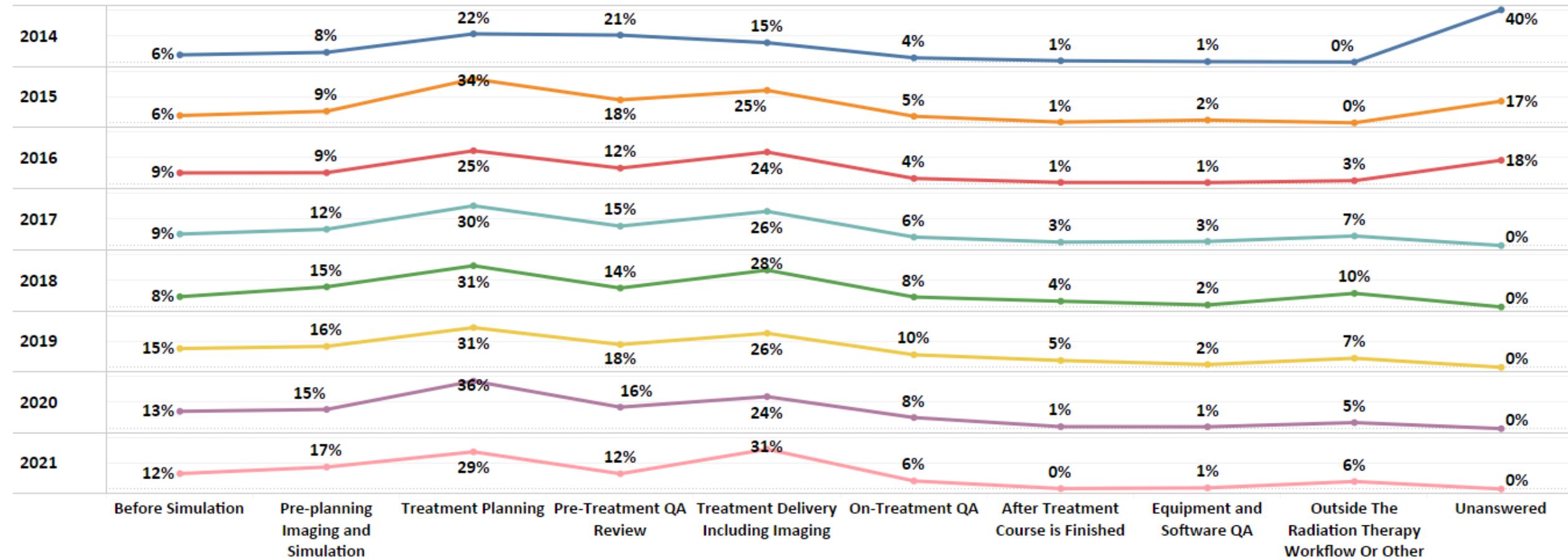
■ Therapeutic Radiation Incident    
 ■ Other Safety Incident    
 ■ Near-miss    
 ■ Unsafe condition    
 ■ Operational/Process Improvement

### Aggregate: Workflow Step Where Event Discovered



This data is based on data element #207 (*Discovered\_Workflow*), presented in yearly increments. As a part of the Q3 2016 data element update, this question became required and an answer option of "Outside the Radiation therapy Workflow or Other" was added.

### Aggregate: Workflow Step(s) Where Event Occurred



This graph depicts the frequency of answer options for data element #208 (*Occurred\_Workflow*) based on the calendar year it was submitted. Users have the option to select more than one answer option, therefore, there is a potential for each year's total percentage to be greater than 100%. As a part of the Q3 2016 data element update, this question became required and an answer option of "Outside the Radiation therapy Workflow or Other" was added.

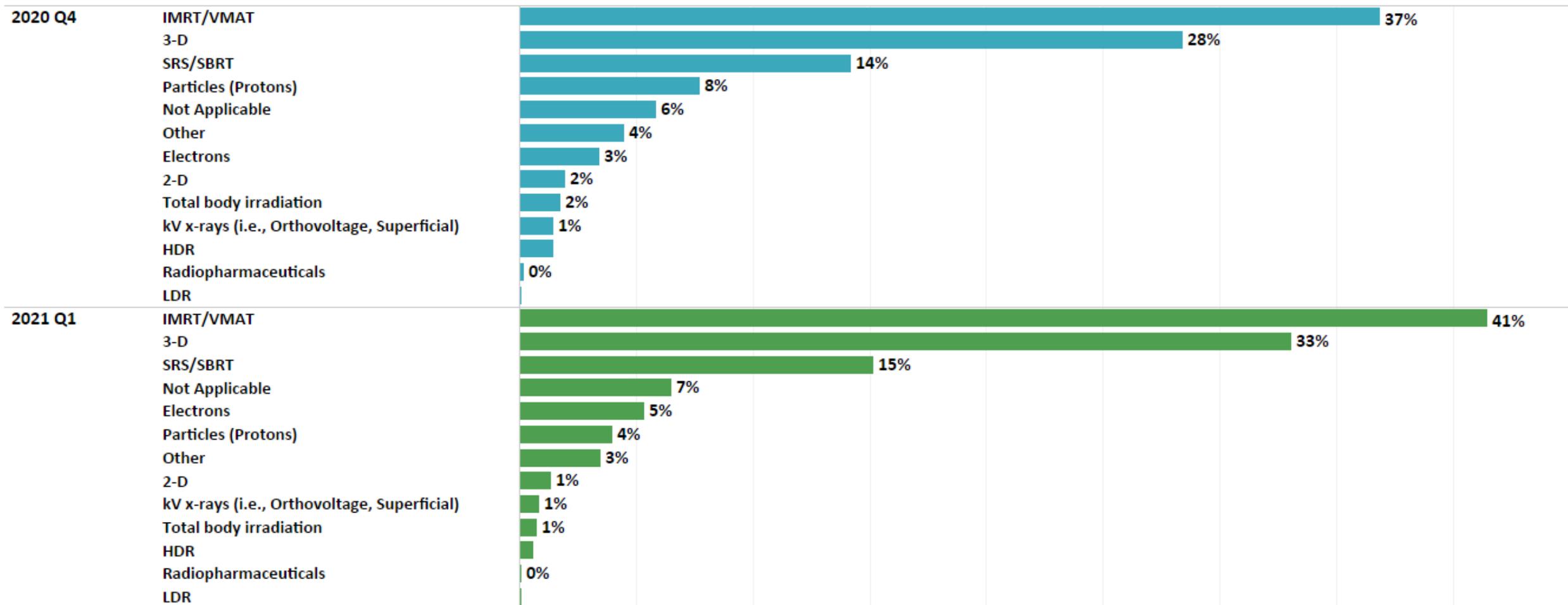
**Aggregate: Workflow Step Where Event Occurred & Event Discovered**

**Occurred Workflow**

<u>Quarter</u>	<u>Discovered Workflow</u>	Before Simulation	Pre-planning Imaging and Simulation	Treatment Planning	Pre-Treatment QA Review	Treatment Delivery Including Imaging	On-Treatment QA	After Treatment Course is Finished	Equipment and Software QA	Outside The Radiation Therapy Workflow Or Other	Grand Total
2021 Q1	Before Simulation	94%	3%							3%	100%
	Pre-planning Imaging and Simulation	24%	68%	8%			1%				100%
	Treatment Planning	11%	42%	42%	3%					2%	100%
	Pre-Treatment QA Review	3%	14%	53%	26%	1%			1%	1%	100%
	Treatment Delivery Including Imaging	1%	7%	24%	12%	48%	3%			5%	100%
	On-Treatment QA	1%	1%	5%	4%	65%	24%				100%
	After Treatment Course is Finished	7%	7%	18%	11%	25%	18%	11%		4%	100%
	Equipment and Software QA					11%			56%	33%	100%
	Outside the Radiation Therapy Workflow or Other	3%		3%		6%	6%			81%	100%

This graph displays the overlap of where in the workflow events occurred (208. *Occurred\_Workflow*) and where it was discovered (207. *Discovered\_Workflow*) for the most recent quarter. The percentage is based on the total number of events that were discovered in that workflow step (e.g., of events that were discovered “before simulation”, X% occurred “before simulation”).

### Aggregate: Treatment Technique(s)



This graph demonstrates the distribution of answers for data element #106 (*Tx\_Technique*) per quarter for the last two quarters. Users may be select more than one technique if pertinent to the event and thus the quarterly percentage total may be greater than 100%.

