

Visualizing Key Performance Indicators to Track Quality and Effectiveness of Medical Education Training Programs

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Background

In the field of graduate medical education, institutions have a duty to gather and present insights from a variety of data sources to monitor the current and longitudinal quality and performance of these programs at both the programmatic and institutional levels. This supports the goal of continuous improvements and allows for timely adjustments. Among the main objectives of this project included to streamline the visualization and reporting of key performance indicators (KPIs) of graduate medical education training program quality and effectiveness so that this information can be reported in real time. Additionally, we needed an enhanced overview of the climate of each program in alignment with ACGME and institutional policies. As such, our goal was to expand our Accreditation Dashboard for GME leadership to easily identify longitudinal trends both at the program and institutional levels so that action can be taken, or best-practice sharing can be encouraged. Lastly, we needed to summarize these data for programs to use as a resource when completing their yearly WebADs updates and Annual Program Evaluation (APE) Action Plans.

Program Code	Program Name	Accreditation Status	Upcoming Site Visit Date	# of Citations	Citation Code	Date of Accreditation Status	Date of Accreditation Email	Date LON Received	Date of GME Response	# of Areas for Improvement/ concern	List areas of improvement	ACGME Survey - # of Domains with ≤ 70% Compliance (see "ACGME Survey Results (AY 22-23)" tab for detailed breakdown)	ACGME Survey - "4 or more days free in 28 day period" domain with ≤ 80% compliance (see "ACGME Survey Results (AY 22-23)" tab for detailed breakdown)	ACGME Survey - "80-hour week (averaged over a four-week period)" domain with ≤ 80% compliance (see "ACGME Survey Results (AY 22-23)" tab for detailed breakdown)	Requires either GMEC Follow-up or Special Review? (Y/N)	Requires Formal Special Review? (Y/N)	GME Portal/MIRF Submissions	Latest Action
[Program Code]	[Program Name]	Continued	12/1/2023	9	I.I.A.4.a), (1), II.B.2.a), VI.E.2, VI.A.1.a), (B), (B), VI.D.2., VI.E.3.e), VI.C.2-VI.C.2.b), II.B.2.b), II.B.2.e),	2/13/2023	2/13/2023	3/6/2023	N/A	3	Faculty Supervision and Teaching, Patient Safety, Educational Content	12	x	x	Y	Y	N	Response to survey received.
[Program Code]	[Program Name]	Continued	N/A	4	VI.E.3.e), VI.C.2-VI.C.2.b), II.B.2.e),	1/23/2023	1/30/2023	2/6/2023	N/A	4	Faculty Supervision and Teaching, Patient Safety, Resources, Educational Content	7	x	x	Y	Y	N	Sent reminder to respond to work hours
[Program Code]	[Program Name]	Continued	N/A	4	I.I.A.4.a), (1), II.B.2.c), II.B.2.e), VI.D.2.a), (2),	4/7/2023	4/8/2023	3/12/2023	N/A	1	Procedural Volume	5			N	N	N	Response to survey due.
[Program Code]	[Program Name]	Continued	N/A	3	I.I.A.4.a), (1), II.B.2.a), VI.A.2.d)	11/8/2023	11/9/2023	12/5/2023	6/21/2022	3	Faculty Supervision and Teaching, Program Director Responsibilities, Resources	0			N	N	N	Response to citations received.

Figure 1.0
 Redacted example of the updated institutional Accreditation Dashboard including ACGME survey KPIs.

Objectives

- To streamline the visualization and reporting of key performance indicators of medical education training program quality and effectiveness at the programmatic and institutional levels.
- To develop an enhanced overview of the current climate of each program including the current accreditation status, number and type of active citations, number, and type of Areas for Improvement (AFIs), and the number and specific domain(s) in non-compliance on the most recent ACGME survey cycle for both residents/fellows and faculty (in alignment with ACGME and institutional policies).
- Provide a dashboard for GME leadership to easily identify longitudinal trends both at the programmatic and institutional levels so that action can be taken regarding concerning trends and best-practice sharing can be encouraged for positive trends.
- Summarize these data into a succinct letter for programs to use as a resource when completing their yearly WebADs updates and Action Plans in their Annual Program Evaluations.

PROGRAM CODE	PROGRAM NAME	TOTAL # OF DOMAINS OUT OF COMPLIANCE	DOMAIN INFORMATION	FROM WHICH ACGME SURVEY?	COMPLIANCE BREAK DOWN	
			Count	Domain Name	% Program Compliant	% Specialty Compliant
[Program Code]	[Program Name]	5				
			1	Education compromised by non-physician obligations	68%	91%
			2	Appropriate balance between education (e.g., clinical teaching, conferences, lectures) and patient care	69%	80%
			3	Faculty members discuss cost awareness in patient care decisions	65%	79%
			4	Time to interact with patients	52%	87%
			5	Process to transition patient care and clinical duties when residents/fellows fatigued	68%	83%

Figure 2.0
 Redacted example of the section in the programmatic letter addressing ACGME survey non-compliant domains and comparison to the specialty average.

PROGRAM CODE	PROGRAM NAME	TOTAL # OF DOMAINS OUT OF COMPLIANCE ON THE MOST RECENT ACGME SURVEY CYCLE
	Program 17	
	Program 18	
	Program 19	
	Program 20	
	Program 21	
	Program 22	
	Program 23	
	Program 24	
[Program Code]	[Program Name]	5
	Program 26	
	Program 27	

Figure 3.0
 Redacted example of the section in the programmatic letter addressing the program's "ranking" among other programs at the institution with non-compliant ACGME survey domains.

Methods Used

- Key performance indicators including accreditation status, number and type of active citations, Areas for Improvement, number and specific domain(s) in non-compliance on the most recent ACGME survey cycle were tracked and visualized in the Accreditation Dashboard for AY 2021-2022 and 2022-2023.
- Programmatic and institutional performance in each of these domains was tracked in the Accreditation Dashboard and shared with GME leadership, Program Directors, and Program Coordinators.
- The data were reviewed by GME leadership to identify systemic and longitudinal areas for improvement.
- Programmatic data were compiled into a template addressed to the Program Director and Program Coordinator with accompanying visualizations and disseminated in advance of their yearly WebADs update and APEs.
- The dashboard remains dynamic and is updated as needed when any of these key performance indicators change.

Results

- Identified concerning trends at the programmatic and institutional levels.
- Identified areas of significant improvement at the programmatic and institutional levels.
- Developed an institutional-wide action plan to address concerning trends.
- Provided an accurate, detailed, and up-to-date resource to programs to be used when planning their goals for the next academic year.
- Help programs understand specific areas within ACGME survey domains that should be addressed in the upcoming year.

Conclusions and Significance

- The updated Accreditation Dashboard successfully provided the GME office with a way to track multiple data points for the institution and per program in one consolidated resource.
- The updated Accreditation Dashboard has become an invaluable tool that allows our GME office to effectively identify and act upon longitudinal issues and outliers in institutional and programmatic training program quality and effectiveness.
- The updated Accreditation Dashboard makes it possible to partition this data and generate program-specific letters with these compiled data for program leadership/administrators on a yearly basis.
- The updated Accreditation Dashboard remains dynamic and is updated with new information as it is received so that it reflects the current conditions in real time (data from years prior are archived on a separate tab so that it can still be referenced and used for longitudinal comparison).
- This new process enables the GME office to determine special review needs and the individual programs to create tailored action plans that are reflective of current and longitudinal performance metrics.