CLER
Clinical Learning
Environment Review

NATIONAL REPORT OF FINDINGS 2018

EXECUTIVE SUMMARY

ACGME
Accreditation Council for
Graduate Medical Education

One of the biggest lessons learned in this second set of visits to nearly 300 clinical learning environments has been the positive effect that the Clinical Learning Environment Review Program appears to be having on enhancing the dialog between graduate medical education leaders and the executive leaders of the health care systems that serve as clinical learning environments for residency and fellowship programs.

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INTRODUCTION

The Accreditation Council for Graduate Medical Education (ACGME) established the Clinical Learning Environment Review (CLER) Program in 2012[1,2] to provide graduate medical education (GME) leaders and executive leaders of hospitals, medical centers, and other clinical settings with formative feedback aimed at improving patient care while optimizing the clinical learning environment (CLE) in the 6 CLER Focus Areas[3]:

- Patient safety
- Health care quality (including health care disparities)
- Care transitions
- Supervision
- Fatigue management, mitigation, and duty hours
- Professionalism

The *CLER National Report of Findings 2018*[4] details findings from the second set of visits to CLEs of 287 ACGME-accredited Sponsoring Institutions (SIs) with 3 or more core residency programs, conducted from March 2015 to June 2017. Similar to the first *National Report* published in 2016,[5] the second report presents the findings from 3 different perspectives—overarching themes, highlights of the challenges and opportunities in each of the Focus Areas, and detailed findings.

The report also offers the CLER Program's first look at changes over time on a selected set of measures in each of the Focus Areas since the last set of CLER visits. This 2-point analysis highlights both progress and challenges in CLEs. These findings can enhance and extend understandings of the complex and dynamic nature of CLEs and help inform conversations on how to continually improve physician training to ensure high-quality patient care.

BACKGROUND

The CLER Program has had at its core a commitment to formative assessment and feedback regarding GME engagement in 6 important, cross-cutting areas of focus. CLER's formative approach recognizes that, although there are shared elements, each hospital, medical center, and ambulatory care site that serves as a CLE for resident and fellow physicians has a unique set of internal and external factors that influence the development and implementation of their strategic goals aimed at improving patient care. The CLER Program relies on the power of the information it provides to stimulate conversations and motivate CLEs to build upon their strengths and address opportunities for improvement.

For the second set of visits, the CLER Site Visitors used Protocol 2.0, which was similar but not identical to the version used in the first set of visits (ie, Protocol 1.0). Whereas the majority of the questions remained constant, Protocol 2.0 included new questions to explore important topics in greater depth. In addition, it included several other changes to enhance the quality of the information gathered as part of the CLER Program's commitment to a model of continual improvement.

The CLER Evaluation Committee continued to provide oversight of and guidance to the CLER Program. The committee is composed of members with expertise in patient safety and health care quality, as well as GME and executive leadership of hospitals and medical centers (eg, chief medical officer, chief nursing officer). The committee also includes postgraduate physician representation and public members.

The committee reviewed and provided guidance to inform the changes in Protocol 2.0. They also reviewed the data resulting from the site visits and brought an external voice to assist in interpreting the findings—presented in the *National Report* as overarching themes and challenges and opportunities in each of the Focus Areas.

METHODS

Collectively, the 287 SIs visited in the second set of visits oversaw 9167 ACGME-accredited residency and fellowship programs, with a median (range) of 20 (3–155) programs per SI. These larger SIs accounted for 87.1% of all residents and fellows in ACGME-accredited programs—with a median (range) of 246 (17–2156) trainees per SI.

Approximately 28% of the CLEs were located in the Northeast region of the United States, 30.3% in the South, 26.5% in the Midwest, and 14.6% in the West. The sites ranged in size from 107 to 2654 acute care beds (median = 528). The majority (67.2%) were nongovernment, not-for-profit organizations; 23.3% were government, nonfederal; 5.9% were investor owned, for profit; and 3.5% were government, federal (*Figure 1*). Although the CLER teams spent the majority of their time at inpatient settings, they also visited affiliated ambulatory care practices in close proximity.

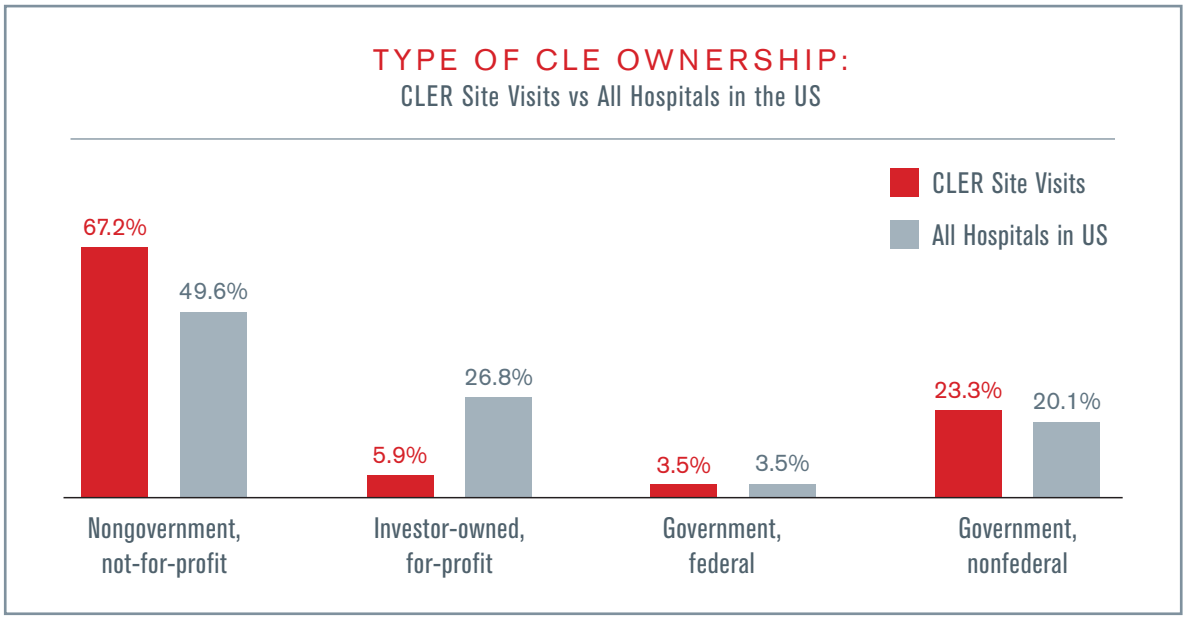

Figure 1. Type of Clinical Learning Environment Ownership: Clinical Learning Environment Review (CLER) Site Visits Versus All Hospitals in the United States (US)

In total, the CLER teams interviewed more than 1600 members of executive leadership (including chief executive officers), 9262 residents and fellows, 8164 core faculty members, and 6034 program directors of ACGME-accredited programs in group meetings. Additionally, the CLER teams interviewed hundreds of the CLEs' leaders in patient safety and health care quality. On walking rounds in the clinical areas, the CLER teams interviewed thousands of residents, fellows, faculty members, nurses, and other health care professionals.

The findings are based on a mixed methods approach to data gathering and analysis to improve the accuracy of the findings by combining quantitative, descriptive, and qualitative evidence in a complementary manner. Data sources include responses to closed-ended questions collected through an electronic audience response system, open-ended discussion questions, and interviews on walking rounds. As such, some of the findings are represented quantitatively while others are described qualitatively.

The overarching themes and findings by Focus Areas were determined in several stages. First, the CLER Program staff asked each CLER Site Visitor to identify the overarching themes and the challenges and opportunities in each of the Focus Areas based on their summative experiences and observations. Next, the CLER Program staff systematically analyzed the content of all responses to discern common themes and note salient concepts. Lastly, the members of the CLER Evaluation Committee reviewed the results and developed a set of commentaries on the importance of the findings and their impact on patient care and physician training. The work of the committee was achieved by consensus.

The 2-point analysis of selected measures (ie, trends) in the Focus Areas is based on matched observations (ie, the same CLEs in both sets of visits). The final data set for this analysis comprised 242 CLEs; reasons for exclusion included health care system consolidations, changes in accreditation status (eg, voluntary withdrawal), changes in the number of core residency programs (eg, fewer than 3 core programs), and incomplete or missing data. The measures examined were the same in both sets of visits (eg, the questions remained constant between Cycle 1 and Cycle 2 of CLER visits). Complete details on data collection and analysis are described in the full *National Report*.[6]

WHO WAS INTERVIEWED?

More than 1600 members of executive leadership including CEOs

9262 residents and fellows

8164 core faculty members

6034 program directors of ACGME-accredited programs

and thousands more

OVERARCHING THEMES

As in the first *National Report*,[7] the second report[8] reveals a number of overarching themes that cut across the Focus Areas. In general, the first 4 themes build upon those in the first *National Report* and the last 2 present new observations. Together, they paint a picture of how many CLEs are on the path to making positive change, albeit incremental. CLEs face significant challenges in implementing change at the speed and magnitude needed to keep pace with, or ideally anticipate, the future of health care delivery.

Together, [the overarching themes] paint a picture of how many clinical learning environments are on the path to making positive change, albeit incremental.

- **Theme 1:** Clinical learning environments vary in their approach to and capacity for addressing patient safety and health care quality. In many clinical learning environments, organizational efforts to engage residents in these areas are emerging. In comparison to residents, there appears to be less focus on participation of fellows in the clinical learning environment's quality and safety activities.

- **Theme 2:** Clinical learning environments vary in how they align and collaborate with graduate medical education in developing the organization's strategic goals aimed at improving patient care. In many clinical learning environments, graduate medical education is largely developed and implemented independently of the organization's other areas of strategic planning and focus.

- **Theme 3:** A limited number of clinical learning environments have designed and implemented educational programs to ensure that all graduate medical education faculty members and program directors have the knowledge, skills, and attitudes necessary for their respective roles in training residents and fellows in patient safety and quality improvement.

- **Theme 4:** Clinical learning environments vary in the degree to which they coordinate and implement interprofessional collaborative learning in the context of delivering patient care.

- **Theme 5:** In general, clinical learning environments lack the mechanisms to identify and eliminate organizational factors that contribute to burnout. Clinical learning environments vary in their awareness of the extent of burnout among health care professionals and its impact on patient safety. A limited number of clinical learning environments appear to be addressing burnout as a priority.

- **Theme 6:** Health care system consolidation and the concomitant organizational changes in infrastructure, governance, priorities, and values are creating new challenges for clinical learning environments to align graduate medical education with initiatives to improve patient care.

CHALLENGES AND OPPORTUNITIES IN THE CLER FOCUS AREAS

See pages 8 to 11 for a series of challenges and opportunities in each of the 6 Focus Areas. See the full *National Report* for commentary on the significance of these findings and a more comprehensive look at the findings in both narrative and graphic form.[4]

The challenges and opportunities are integral to the nation's understanding of how CLEs are engaging residents and fellows in the Focus Areas. They also provide insight on how CLEs can continuously take important steps designed to purposely enhance the connection between GME and optimal patient care. By disseminating these findings, the CLER Program aims to stimulate conversations and encourage CLEs to implement appropriate actions to improve the quality of the learning environment and patient care.

PATIENT SAFETY

Finding 1: In general, residents and fellows were aware of their clinical learning environment's (CLE's) process for reporting patient safety events. Some residents and fellows appeared to have used the system.

Residents and fellows appeared to be most comfortable reporting through the chain-of-command and resolving issues at the local or departmental level. Often, these events did not appear to be entered into the CLE's patient safety event reporting system.

When residents or fellows did file a report, or when they had others file it for them, many received little or no feedback from the CLE.

Finding 2: In general, residents, fellows, and nurses lacked clarity and awareness of the range of reportable patient safety events, including what defines a near miss/close call.

When queried, residents, fellows, and nurses also appeared to vary in their understanding of how the clinical learning environments used the reporting of adverse events and near misses/close calls to improve systems of care.

Finding 3: Across clinical learning environments, a limited number of residents, fellows, and faculty members participated in interprofessional, interdisciplinary, systems-based improvement efforts, such as patient safety event reviews and analyses.

Many residency and fellowship programs used scheduled departmental morbidity and mortality (ie, M&M) conferences, case conferences, or grand rounds as the primary means of engaging residents and fellows in analyzing patient safety events rather than real-time interprofessional patient safety investigations.

HEALTH CARE QUALITY

Finding 1: Although most residents and fellows indicated that they participate in quality improvement (QI) projects, many interviewed appeared to have a limited knowledge of QI concepts and of the specific methods and approaches to QI employed by the clinical learning environment.

Finding 2: In many clinical learning environments (CLEs), resident and fellow engagement in quality improvement (QI) appeared to be limited to implementing solutions prescribed by the CLE or the resident's or fellow's department. When residents and fellows participated in QI projects, many of the projects did not align with the CLE's overall goals, were limited in scope, or lacked all of the components of a complete QI cycle.

A limited number of CLEs integrated QI as part of system-wide efforts to provide residents and fellows with experiential learning aimed at achieving sustained improvements in patient care.

Finding 3: In most clinical learning environments, residents and fellows appeared to have limited participation in interprofessional quality improvement teams.

Finding 4: Across clinical learning environments, a limited number of residents and fellows reported access to data on quality metrics and benchmarks for the purposes of quality improvement, including data on outcomes of care for the population of patients for whom they are providing care.

Finding 5: In a few clinical learning environments, the graduate medical education community has established resident and fellow work groups (such as committees) to increase resident and fellow engagement in quality improvement (QI). Of these, few were integrated with the clinical learning environment's formal QI processes.

Occasionally, residents and fellows served on departmental QI committees; fewer were involved in institutional QI committees. If assigned to these committees, many had limited opportunities for meaningful participation.

HEALTH CARE DISPARITIES

Finding 1: Generally, across clinical learning environments, residents and fellows indicated awareness of and were able to describe populations served by the clinical site that were at risk for health care disparities.

Finding 2: Few clinical learning environments appeared to have a formal strategy to address health care disparities or a systematic approach to identifying variability in the care provided to or clinical outcomes of their patient populations at risk for health care disparities. A limited number of clinical learning environments were engaged in comprehensive efforts to identify and eliminate health care disparities in a systematic manner; it was uncommon for residents and fellows, faculty members, or program directors to be involved in these efforts.

Finding 3: In addressing health care disparities, many clinical learning environments focused primarily on specific issues such as improving access to care or meeting regulatory requirements. When residents and fellows engaged in addressing health care disparities, it was most often at the level of enhancing patient care access through providing direct service; it was uncommon for them to participate in other systems-based solutions to eliminate health care disparities.

Finding 4: Generally, residents and fellows reported that learning about cultural competency happened informally while providing clinical care. Across most clinical learning environments, formal education and training on cultural competency did not address the specific populations served by the institution.

CARE TRANSITIONS

Finding 1: Most clinical learning environments did not appear to have a standardized approach for facilitating resident and fellow change-of-duty handoffs. There appeared to be little understanding of the difference between standardization and uniformity.

In general, residents and fellows lacked awareness and understanding of the importance of standardizing essential elements of the handoff process.

Templates or tools were frequently used to facilitate the handoffs. Across programs and the clinical learning environment, the use of and type of templates varied. It appeared that residents most often engaged in face-to-face handoffs; fellows often conducted handoffs by telephone or e-mail.

Finding 2: Residents, fellows, and nurses expressed concerns that communication during transitions from the emergency department to inpatient care, from service to service in inpatient settings, from inpatient care to outpatient care, and from one hospital to another was often incomplete or inaccurate and created risk to patient safety.

A standardized, organization-wide approach to training in and managing transitions in care between clinical services assigned to resident and fellow teams (eg, emergency department to inpatient care, operating room to intensive care unit, intensive care unit to floor, and medicine to surgery) was uncommon across clinical learning environments.

Finding 3: Across clinical learning environments, a limited number of programs appeared to use formal criteria to assess residents' and fellows' skills in change-of-duty handoffs. Across programs, it was uncommon to find faculty members consistently engaged in direct observation of resident and fellow change-of-duty handoffs. When faculty members were involved, the level of engagement and the process for supervision varied. Little or no monitoring of change-of-duty handoffs by graduate medical education leadership, executive leadership, or patient safety and quality leaders of the clinical learning environment was reported.

SUPERVISION

Finding 1: Across most clinical learning environments, residents, fellows, and faculty members reported an overall culture of adequate supervision within the graduate medical education community.

Clinical learning environments also faced challenges of under- and oversupervision.

- Residents, fellows, faculty members, and program directors perceived that undersupervision occurred mainly during times of high acuity, high patient volume, nights and weekends when the number of faculty members available to supervise was limited, and when the demands of competing clinical responsibilities exceeded the capacity of faculty members to provide adequate supervision.
- Many faculty members and program directors perceived that external factors were contributing to oversupervision that impeded resident and fellow readiness for clinical practice after training. The most common reasons given for concerns regarding oversupervision related to billing rules and medical liability concerns.

Finding 2: Across many clinical learning environments, residents and fellows expressed concerns about their peers providing consultative services without adequate supervision, leading to patient safety vulnerabilities.

Finding 3: Across many clinical learning environments, residents and fellows expressed reluctance to request help from the attending physician or to report concerns regarding supervision. Residents and fellows were hesitant to ask for assistance for several reasons, including a lack of understanding about when to escalate concerns to a supervisor; an unwillingness to appear unprepared by asking for assistance; a fear of retaliation; a sense of shame; and concerns of pushback from peers, attending physicians, and consultants.

Finding 4: Many clinical learning environments made efforts to implement online systems by which nurses and other clinical staff members could verify the competency of an individual resident or fellow to perform various patient procedures without direct supervision. When an online system was available, nurses were not aware of its existence, did not know how to access it, or rarely used it.

Across many clinical learning environments, nurses indicated that, in the absence of an attending physician, they relied on familiarity, trust, or year of training.

Finding 5: Residents and fellows, faculty members, program directors, graduate medical education leadership, patient safety leadership, and executive leadership varied in their awareness of patient safety events related to supervision.

In general, the executive leadership and the patient safety and quality leaders of the clinical learning environments indicated that they did not actively monitor the supervision of residents and fellows. They indicated monitoring is limited to retrospective review of patient safety events. Responsibility for resident and fellow supervision was viewed as primarily the purview of the graduate medical education community. Across clinical learning environments, some program directors reported having managed issues related to resident and fellow supervision within the past year that resulted in a patient safety event.

FATIGUE MANAGEMENT, MITIGATION, AND DUTY HOURS

Finding 1: When provided with a scenario of being maximally fatigued 2 hours before sign-off, across clinical learning environments, some residents and fellows reported that they would continue to work until their sign-off rather than expect to be taken off duty. When presented with the same scenario, faculty members and program directors were less likely to express the belief that residents and fellows would continue to work under such circumstances.

Finding 2: In many clinical learning environments, residents and fellows described witnessing signs of burnout in a number of their colleagues. The main contributors to resident and fellow burnout related to high patient volume, patient acuity, and nonphysician responsibilities. Also, residents and fellows reported observing signs of burnout among faculty members and program directors.

Faculty members and program directors reported the same contributing factors identified by residents and fellows and emphasized clinical productivity pressures, extensive documentation requirements, inadequate clinical and administrative support, and the overall challenge of balancing teaching, research, administrative responsibilities, and patient care.

Finding 3: In general, clinical learning environments had developed and implemented some form of fatigue management for residents and fellows. Mitigation focused mainly on provision of sleeping facilities (eg, designated call rooms) and transportation options (eg, taxi services).

A limited number of clinical learning environments had systematic strategies and solutions that focused on prevention, recognition, and effective mitigation of fatigue and burnout. If strategies existed, they were generally in response to an event related to fatigue or burnout.

PROFESSIONALISM

Finding 1: In many clinical learning environments, graduate medical education and executive leadership expressed intolerance for behaviors that are considered unprofessional. Across some clinical learning environments, residents, fellows, and clinical staff described witnessing or experiencing incidents of disrespectful or disruptive behavior on the part of attending physicians, residents, fellows, nurses, or other clinical staff. These findings ranged from descriptions of isolated incidents to reports of disrespectful behavior that was persistent or chronic in nature.

Finding 2: Residents and fellows reported instances of feeling pressured to compromise their integrity to satisfy an authority figure.

Finding 3: Across clinical learning environments, residents and fellows described experiencing professionalism issues in obtaining consultation services (eg, delays or lack of responsiveness to providing assistance in patient care, disrespectful communication in response to requests).

Finding 4: Generally, residents and fellows appeared to be aware of the mechanisms and resources available to resolve perceived mistreatment if seeking assistance beyond those offered by graduate medical education. Many also indicated that they would inform their chain-of-command. The perceived effectiveness of the institution's response varied across clinical learning environments.

Occasionally, residents and fellows indicated that they would not report mistreatment out of concern for adverse consequences of reporting.

Finding 5: Across clinical learning environments, some residents and fellows reported documenting history and physical findings in a patient's health record that they did not personally elicit (such as copying and pasting in the electronic health record without proper attribution).

CHANGES SINCE THE LAST CYCLE OF CLER VISITS: TRENDS IN THE CLER FOCUS AREAS

The CLER Program assessed and monitored a selected set of observations in each of the Focus Areas over the last 2 sets of visits. The measures examined are not comprehensive and do not summarize the full scope of resident and fellow engagement in the Focus Areas. Instead, they offer a snapshot that paints a multidimensional picture of the CLE. Collectively, the results indicate both progress and challenges across the Focus Areas since the last cycle of visits, as shown in the examples that follow on pages 13 to 18.

The between-cycle findings across the Focus Areas indicate that ongoing formative feedback may be having some effect in advancing CLEs. They also point to opportunities for improvement. In general, the results demonstrate modest progress in some areas, little or no movement in others, and undesired movement in other areas. Given their dynamic and intricate nature, CLEs can have a considerable time lag between the discovery of challenges, the implementation of systems changes to address these challenges, and the demonstration of results. The selected trends offer a perspective on how CLEs can continue their journey to assess and explore innovative ways to improve the learning environment and to ensure safe and high-quality patient care.

The between-cycle findings across the Focus Areas indicate that ongoing formative feedback may be having some effect in advancing clinical learning environments. They also point to opportunities for improvement. In general, the results demonstrate modest progress in some areas, little or no movement in others, and undesired movement in other areas.

PATIENT SAFETY AT A GLANCE

As presented in *Figure 2*, a higher median percentage of residents and fellows in Cycle 2 than in Cycle 1 indicated that the clinical site provided a supportive and nonpunitive environment for reporting errors; that they had experienced an adverse event, near miss/close call, or unsafe condition; that they had submitted a patient safety event into their CLE's patient safety event reporting system; and that they had reported a near miss/close call event. Additionally, a greater percentage of CLEs in Cycle 2 tracked the number of patient safety event reports submitted by residents and fellows than in Cycle 1 (*Figure 3*).

Figure 2 also shows little change from Cycle 1 to Cycle 2 in terms of residents and fellows receiving feedback on the outcome of a patient safety event report submitted into the CLE's central reporting system and a decline in the median percentage of residents and fellows reporting participation in an interprofessional patient safety event investigation. In both Cycle 1 and Cycle 2, the proportion of residents and fellows with a working knowledge of basic patient safety terminology varied across CLEs (*Figure 4*).

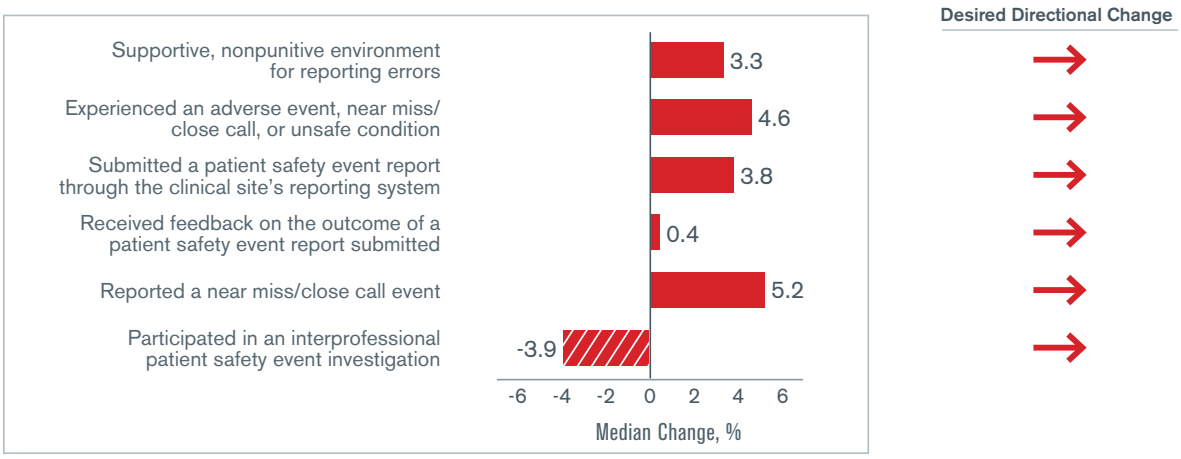

Figure 2. Median Percentage Differences on Selected Measures in Patient Safety Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits Based on Resident and Fellow Responses to Closed-Ended Questions in Group Interviews

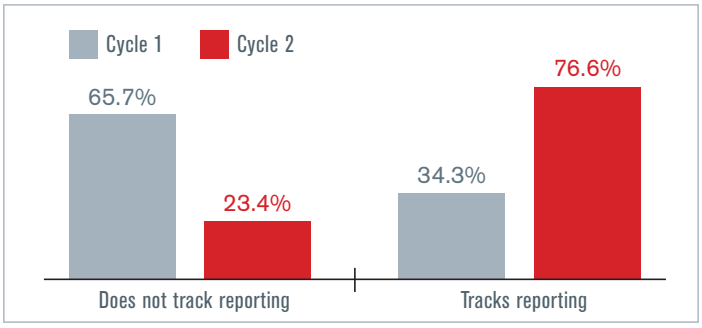

Figure 3. Percentage of Clinical Learning Environments That Tracked the Number of Patient Safety Event Reports Submitted by Residents and Fellows: Change Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits

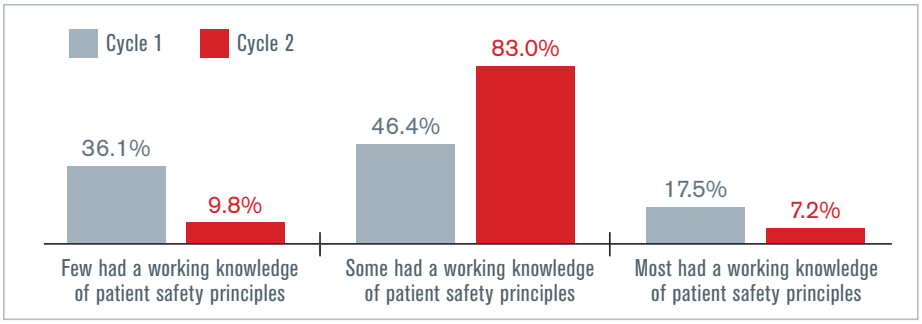

Figure 4. Percentage of Clinical Learning Environments by Proportion of Resident and Fellow Knowledge of Basic Patient Safety Terminology and Principles: Change Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits

HEALTH CARE QUALITY (INCLUDING HEALTH CARE DISPARITIES) AT A GLANCE

Compared with Cycle 1, a larger median percentage of residents and fellows in Cycle 2 (postgraduate year 2 and above) reported knowing the priorities in quality improvement (QI) at their clinical site and participating in a QI project of their own design or one designed by their program or department. Of the residents and fellows who reported that they had participated in a QI project, a smaller median percentage reported that the project was linked to the clinical site's QI goals in Cycle 2 than in Cycle 1. A slightly higher median percentage of residents and fellows, however, reported being engaged in an interprofessional QI project linked to the clinical site's QI goals. Differences were also noted between Cycle 1 to Cycle 2 in the proportion of residents and fellows with a working knowledge of QI concepts. These results are presented in *Figures 5* and *6*.

In the area of health care disparities, a slightly lower median percentage of residents and fellows reported knowing their clinical site's priorities in addressing health care disparities in Cycle 2 than in Cycle 1 (*Figure 5*). There was also little change in the percentage of CLEs that appeared to have a systematic approach to addressing health care disparities among the patients receiving care at these clinical sites (see full report).[9]

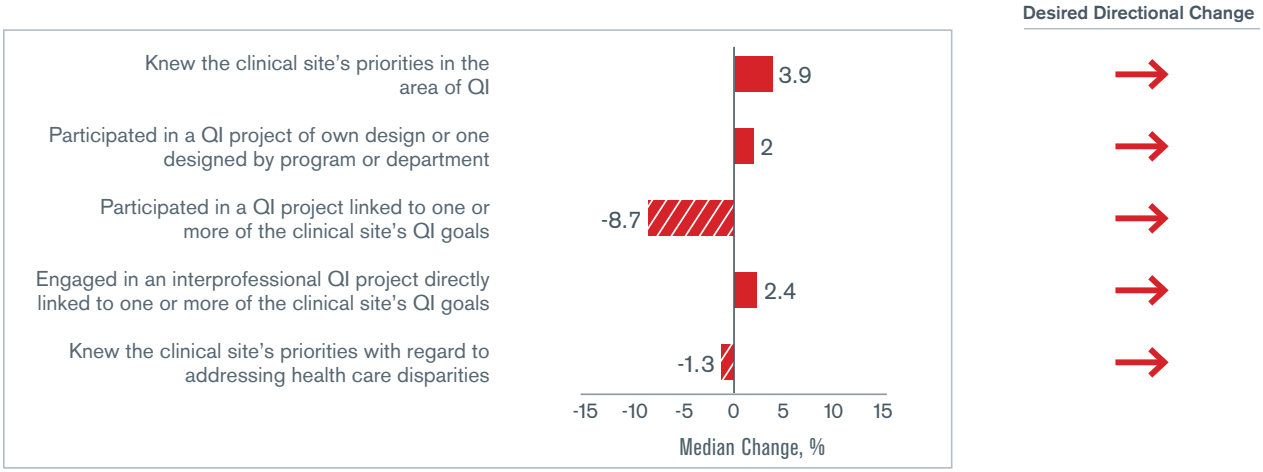

Figure 5. Median Percentage Differences on Selected Measures in Health Care Quality Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits Based on Resident and Fellow Responses to Closed-Ended Questions in Group Interviews

Abbreviation: QI, quality improvement.

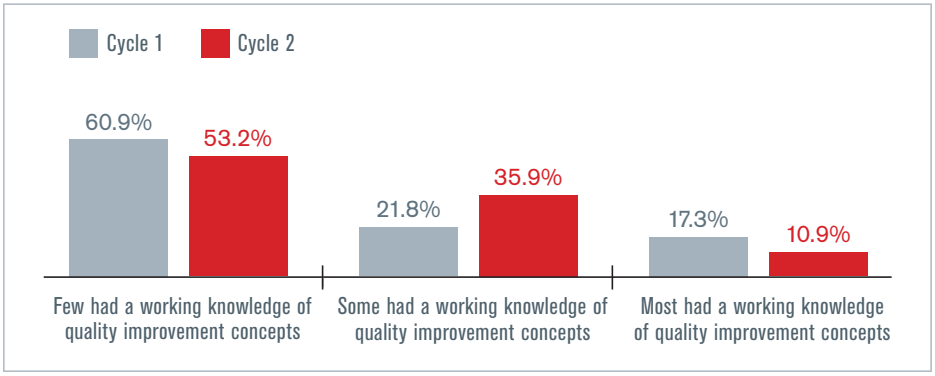

Figure 6. Percentage of Clinical Learning Environments by Proportion of Resident and Fellow Knowledge of Basic Quality Improvement Concepts: Change Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits

CARE TRANSITIONS AT A GLANCE

Overall, the majority of the measures in care transitions moved in a direction opposite of desired change since the first cycle of visits (*Figure* 7). From Cycle 1 to Cycle 2, a lower median percentage of residents and fellows reported following a standardized process for handling transitions of care from inpatient to outpatient and during handoffs between shifts. Of those who reported following a standardized process during handoffs between shifts, a lower median percentage in Cycle 2 indicated that the process included a standardized written template for communication compared with those in Cycle 1.

Based on observations during walking rounds, the change-of-duty handoff processes in most CLEs did not appear to be standardized in Cycle 1. At the time of the Cycle 2 visit, it appeared that most CLEs had some standardization (*Figure 8*).

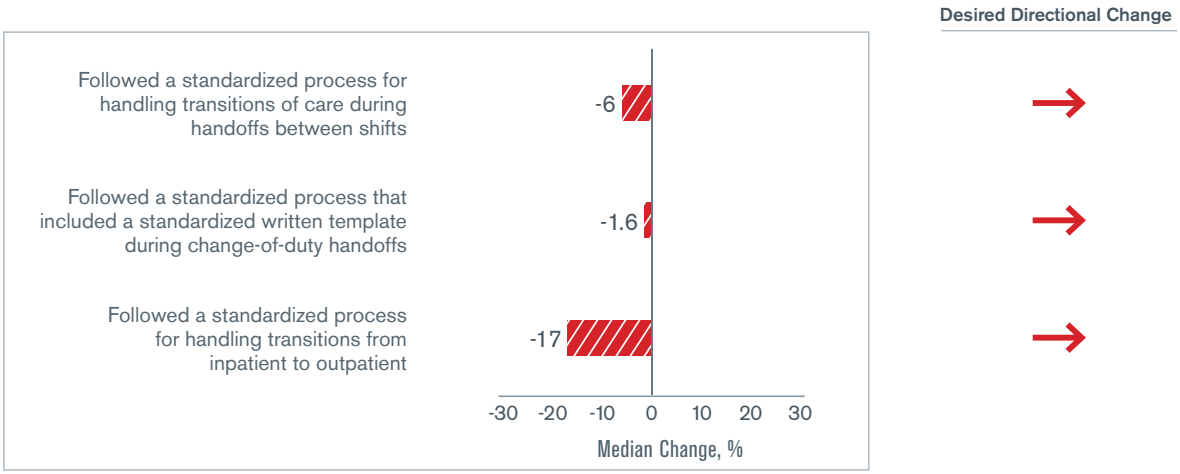

Figure 7. Median Percentage Differences on Selected Measures in Care Transitions Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits Based on Resident and Fellow Responses to Closed-Ended Questions in Group Interviews

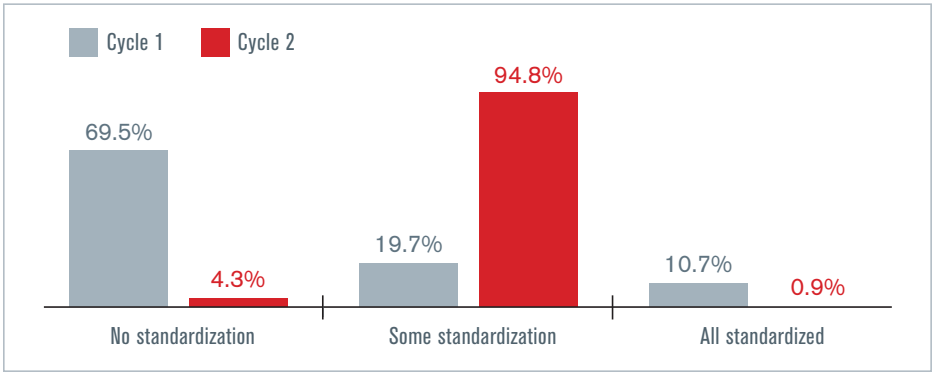

Figure 8. Percentage of Clinical Learning Environments With Handoff Processes That Were Standardized Across Programs, Based on Direct Observations: Change Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits

SUPERVISION AT A GLANCE

Figure 9 presents changes from Cycle 1 to Cycle 2 in selected measures related to supervision. In Cycle 2, a higher median percentage of residents and fellows reported being placed, or witnessing a peer placed, in a situation where there was inadequate supervision at the clinical site. Although a high median percentage of residents and fellows across CLEs continued to report knowing what they were allowed to do without direct supervision in both cycles of visits, the median percentage has declined since the first cycle of visits.

Compared with Cycle 1, a higher median percentage of residents and fellows in Cycle 2 reported having an objective way to know what procedures residents and fellows from other services were allowed to do without direct supervision when consulting on patients. As with the first set of visits, nurses in many CLEs indicated on walking rounds that they relied primarily on trust when residents and fellows performed clinical procedures in the absence of an attending physician (*Figure 10*).

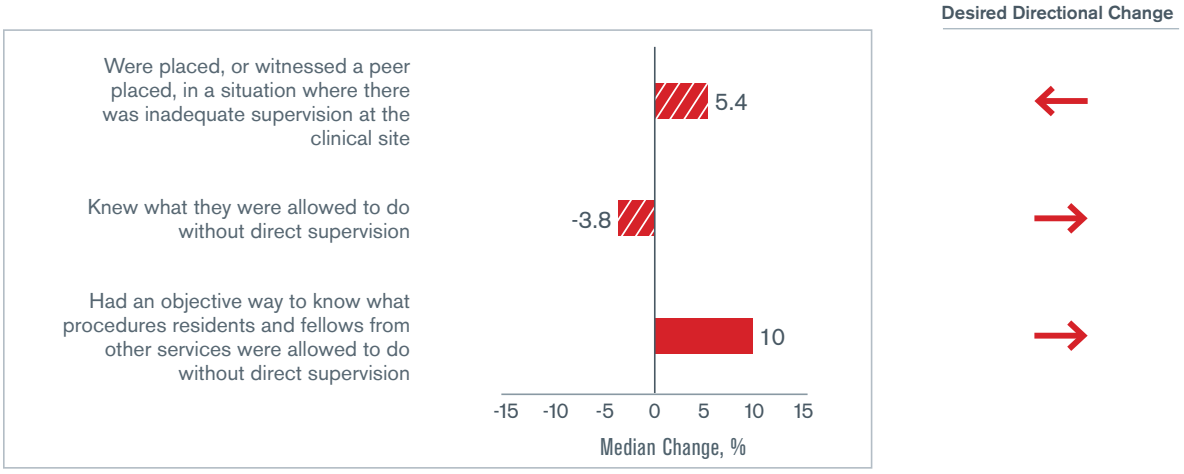

Figure 9. Median Percentage Differences on Selected Measures in Supervision Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits Based on Resident and Fellow Responses to Closed-Ended Questions in Group Interviews

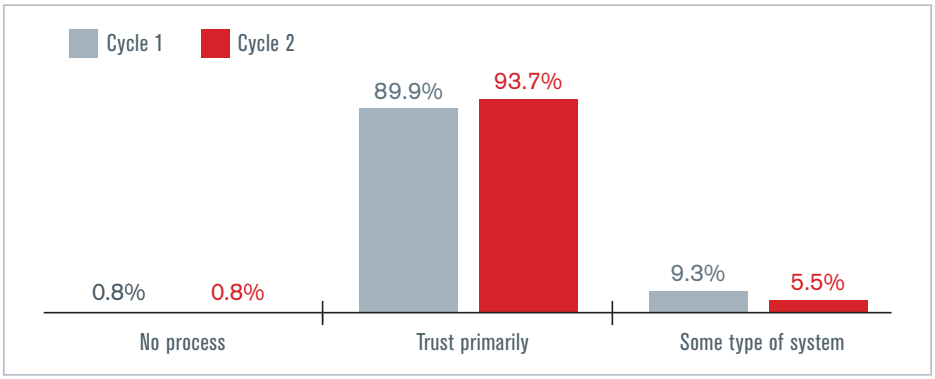

Figure 10. Percentage of Clinical Learning Environments by Mechanism Used for Identification of Resident and Fellow Competency to Perform Clinical Procedures, as Reported by Nurses: Change Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits

FATIGUE MANAGEMENT, MITIGATION, AND DUTY HOURS AT A GLANCE

From Cycle 1 to Cycle 2, the median percentage of residents and fellows reporting that they would power through to handoff if placed in a situation in which they were impaired by fatigue increased markedly (*Figure 11*). Additionally, in both cycles, the CLEs' patient safety and quality leaders recalled patient safety events related to resident and fellow fatigue in the past year (see full report).[9]

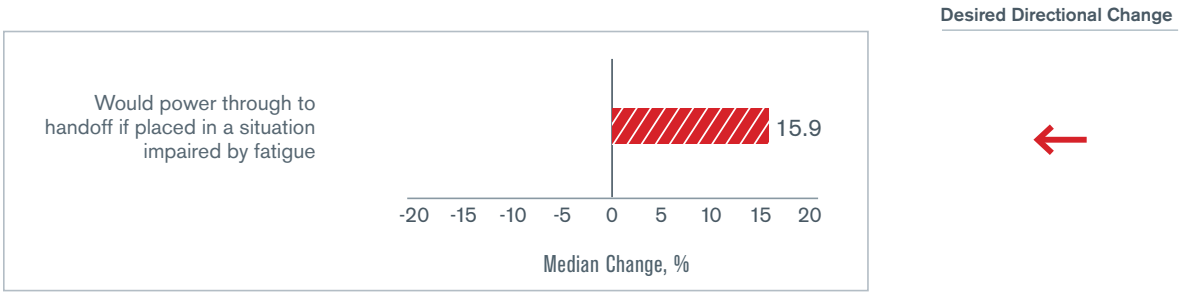

Figure 11. Percentage of Residents and Fellows Who Reported That They Would Power Through When Maximally Fatigued: Median Percentage Differences Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits

PROFESSIONALISM AT A GLANCE

Figure 12 presents selected measures in professionalism. In Cycle 2, a lower median percentage of residents and fellows reported that the clinical site provided a supportive, nonpunitive environment for coming forward with concerns regarding honesty in reporting (eg, patient data, work hours) compared with Cycle 1.

The median percentage of residents and fellows who reported documenting a history or physical finding in a patient medical record that they did not personally elicit and feeling pressured to compromise their honesty or integrity to satisfy an authority figure during training at the clinical site was slightly lower in Cycle 2 than in Cycle 1.

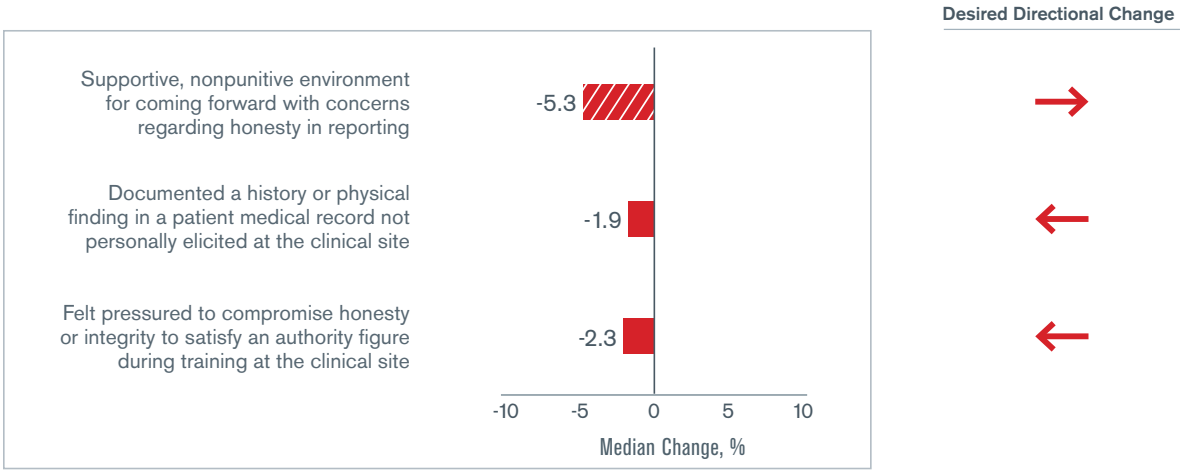

Figure 12. Median Percentage Differences on Selected Measures in Professionalism Between Cycle 1 and Cycle 2 of Clinical Learning Environment Review Visits Based on Resident and Fellow Responses to Closed-Ended Questions in Group Interviews

LESSONS LEARNED

One of the biggest lessons learned in this second set of visits to nearly 300 CLEs has been the positive effect that the CLER Program appears to be having on enhancing the dialog between GME leaders and the executive leaders of the health care systems that serve as CLEs for residency and fellowship programs.

Whereas the report's second overarching theme notes that GME continues to be somewhat insulated from CLEs' other areas of strategic planning and focus, feedback from GME leadership indicates that new and more substantial conversations are occurring between GME and CLE leadership. These new conversations indicate a pattern of collaboration that reaches beyond GME's traditional roles of fulfilling the CLE's educational mission and serving as a key component of the CLE's clinical workforce. The new conversations appear to be examining how GME can better align with the CLE's mission to deliver the best patient care and to meet new patient safety and quality performance standards that have emerged in the current health care environment.

Similar to the first report released in 2016,[10] the second *National Report* also notes a large degree of variability across the Focus Areas—both within and across CLEs. Variability can be the result of positive forces seeking to bring about change. It can also be a sign of processes that are inefficient or ineffective, thereby representing opportunities for improvement.

A noteworthy example of improvement in overall performance was seen in the area of patient safety. The 2018 report notes that many CLEs demonstrated an increase in resident and fellow reporting of patient safety events between the first and second CLER visit. Whereas the degree of overall improvement was modest at the national level, at the individual level, a number of CLEs demonstrated high rates (eg, > 90%) of resident and fellow reporting of patient safety events.

FUTURE DIRECTIONS

Built on a model of quality improvement, the CLER Program will continue to explore new opportunities to provide the nation's CLEs with information they can use to simultaneously optimize learning and patient care. One mechanism for doing so will be the introduction of subprotocols to enhance the regular site visit process. The first of these subprotocols will focus on the operative and procedural areas, and a second subprotocol will provide insights on CLEs from the patient perspective. In the future, the CLER Program will also explore the perspective of governance and governing bodies' role in overseeing the mission and goals of their CLEs—particularly as it affects the quality of GME and patient care. The CLER Program will also seek to deepen understanding of the structure and function of medical education across the medical continuum, specifically lifelong learning as seen through continuing professional development.

One of the Focus Areas (care transitions) will also evolve into a new area called "teaming" and will be incorporated into future versions of the CLER Site Visit protocol. In both cycles of CLER visits, it appeared that nurses, residents, and fellows often worked in parallel rather than in an integrated fashion, evidenced by the reported lack of collaborative educational or learning experiences. This finding was highlighted as an overarching theme in both the 2016 and the 2018 *National Report* and serves as the impetus for evolving "care transitions" into "teaming." It is important to note that in this evolution, the CLER Program will not lose the essential elements associated with transitions of care. Rather, these elements will be redistributed and assessed in the context of relevant Focus Areas such as patient safety and supervision.

Over time, it is anticipated that the CLER Program will deepen its exploration of how CLEs invest in, deliberately design, and monitor new models to promote learning and performance within clinical care teams—thereby strengthening the association between the quality of GME experience and the quality of health care in general. The efforts of the National Academy of Medicine and other related work in the areas of learning health systems and high-reliability organizations[11,12] indicate that GME will likely benefit from CLEs who have explicitly focused their organizational efforts on operationalizing and sustaining these concepts. The collective findings from the CLER Site Visits indicate that the attributes of high-performing CLEs may be directly associated with the concepts of high-performing learning health systems.

CONCLUSION

The findings of the CLER Site Visits continue to shine an important light on the essential role of the CLE in shaping how residents and fellows learn the practice of medicine. Health care systems that train physicians have the responsibility of ensuring a high-quality learning environment as well as making certain that new learners acquire systems-orientated skills to support the highest level of care for the patients of tomorrow.

The current *National Report* highlights the importance of transformational change within CLEs to improve resident and fellow learning and patient care. Such change within a CLE requires a complete organizational commitment, with individuals modeling behavior that promotes improvements in the care of patients. For CLEs, this means joining with GME at all levels, from strategic planning, to faculty development, to the front lines of enhancing interprofessional team-based care. Real investment in transformation will likely enhance quality of care, improve patient care outcomes, and create a thriving work climate—yielding overall benefit for the CLE.

Over time, it is anticipated that the Clinical Learning Environment Review Program will deepen its exploration of how clinical learning environments invest in, deliberately design, and monitor new models to promote learning and performance within clinical care teams—thereby strengthening the association between the quality of graduate medical education experience and the quality of health care in general.

Note: Findings presented in this Executive Summary are reprinted from the *CLER National Report of Findings 2018* (*J Grad Med Educ.* 2018;10[4 suppl 1]:1-124) with permission from the *Journal of Graduate Medical Education*.

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