

## Appendix A1. General Characteristics of Sponsoring Institutions (SIs)

### A1.1. Sponsoring Institution Distribution by Region and Type

|                                         | SIs with CLER Visits<br>% | All SIs<br>% |
|-----------------------------------------|---------------------------|--------------|
| <b>Total</b>                            | n=297                     | N=696        |
| <b>Region</b>                           |                           |              |
| Northeast                               | 29.6                      | 24.4         |
| Midwest                                 | 25.9                      | 23.3         |
| South                                   | 29.3                      | 29.9         |
| West                                    | 14.1                      | 20.8         |
| Territory <sup>a</sup>                  | 1.0                       | 1.6          |
| <b>Type of SI</b>                       |                           |              |
| General/teaching hospital               | 60.9                      | 57.8         |
| Medical school or health science center | 26.6                      | 14.8         |
| Educational consortium                  | 3.4                       | 3.0          |
| Children's hospital                     | 4.0                       | 2.4          |
| Other                                   | 5.1                       | 22.0         |

### A1.2. Sponsoring Institution Distribution by Number of ACGME-Accredited Residency and Fellowship Programs, and Participating Sites

|                                      | SIs with CLER Visits<br>% | All SIs<br>% |
|--------------------------------------|---------------------------|--------------|
| <b>Total</b>                         | n=297                     | N=696        |
| <b>Number of Programs</b>            |                           |              |
| <8 programs                          | 26.9                      | 67.7         |
| 8-17 programs                        | 23.2                      | 11.1         |
| 18-48 programs                       | 24.9                      | 10.5         |
| >48 programs                         | 24.9                      | 10.8         |
| <b>Number of Core Programs</b>       |                           |              |
| <5 core programs                     | 30.0                      | 65.2         |
| 5-8 core programs                    | 20.2                      | 10.6         |
| 9-21 core programs                   | 26.6                      | 12.8         |
| >21 core programs                    | 23.2                      | 11.4         |
| <b>Number of Participating Sites</b> |                           |              |
| <9 sites                             | 25.9                      | 61.6         |
| 9-16 sites                           | 25.3                      | 15.8         |
| 17-29 sites                          | 25.6                      | 12.4         |
| >29 sites                            | 23.2                      | 10.2         |

Note. <sup>a</sup>Limited to three SIs in Puerto Rico.

### A1.3. Number and Distribution of Core Faculty Members at Sponsoring Institutions by Specialty Grouping

|                | SI's with CLER Visits<br>% | All SI's<br>% |
|----------------|----------------------------|---------------|
| <b>Total</b>   | n=55,367                   | N=59,949      |
| Medical        | 32.3                       | 35.5          |
| Surgical       | 39.5                       | 37.3          |
| Hospital-based | 28.2                       | 27.2          |

### A1.4. Number and Distribution of Residents and Fellows at Sponsoring Institutions by Gender, Level of Training, and Specialty Grouping

|                          | SI's with CLER Visits<br>% | All SI's<br>% |
|--------------------------|----------------------------|---------------|
| <b>Total</b>             | n=111,482                  | N=123,387     |
| <b>Gender</b>            |                            |               |
| Male                     | 52.4                       | 52.2          |
| Female                   | 43.9                       | 44.3          |
| Unknown                  | 3.7                        | 3.6           |
| <b>Level of Training</b> |                            |               |
| PGY-1                    | 36.3                       | 36.6          |
| PGY-2                    | 27.8                       | 28.0          |
| PGY-3                    | 25.0                       | 25.3          |
| PGY-4+                   | 10.9                       | 10.1          |
| <b>Specialty Group</b>   |                            |               |
| Medical                  | 57.4                       | 60.1          |
| Surgical                 | 21.8                       | 20.3          |
| Hospital-based           | 20.8                       | 19.5          |

## Appendix A2. General Characteristics of Clinical Learning Environments<sup>a</sup>

### A2.1. Clinical Learning Environment Distribution by Type of Ownership and Services

|                                         | SIs with CLER Visits<br>% | Teaching Hospitals <sup>b</sup><br>% | All Hospitals<br>% |
|-----------------------------------------|---------------------------|--------------------------------------|--------------------|
| <b>Total</b>                            | n=297                     | n=323                                | N=6,295            |
| <b>Type of Ownership</b>                |                           |                                      |                    |
| Nongovernment, not-for-profit           | 69.4                      | 65.3                                 | 50.0               |
| Investor-owned, for-profit              | 5.4                       | 3.1                                  | 26.1               |
| Government, federal                     | 3.7                       | 14.2                                 | 3.4                |
| Government, nonfederal                  | 21.5                      | 17.3                                 | 20.5               |
| <b>Service for Majority of Patients</b> |                           |                                      |                    |
| General medical and surgical            | 94.6                      | 91.6                                 | 75.8               |
| Other <sup>c</sup>                      | 5.4                       | 8.4                                  | 24.2               |

Note. SIs=Sponsoring Institutions.

### A2.2. Clinical Learning Environment Distribution by Beds and Staffing

|                                      | CLER Program<br>Median (IQR) | Teaching Hospitals<br>Median (IQR) | All Hospitals<br>Median (IQR) |
|--------------------------------------|------------------------------|------------------------------------|-------------------------------|
| <b>Total number of licensed beds</b> | 610 (456-832)                | 600 (407-798)                      | 101 (40-254)                  |
| <b>Total number of staffed beds</b>  | 520 (343-700)                | 496 (327-686)                      | 83 (33-200)                   |
| <b>Staff<sup>de</sup></b>            |                              |                                    |                               |
| Registered nurses                    | 1,348 (781-2,000)            | 1,324 (744-1,977)                  | 102 (44-327)                  |
| Clinical staff                       | 749 (749-1,242)              | 703 (422-1,164)                    | 93 (47-227)                   |
| All other personnel                  | 2,107 (1,200-3,051)          | 2,064 (1,300-3,117)                | 211 (89-558)                  |

Note. IQR=Interquartile range.

Note. <sup>a</sup>Based on the 2013 American Hospital Association Annual Survey. <sup>b</sup>Member of Council of Teaching Hospital of the Association of American Medical Colleges. <sup>c</sup>Includes psychiatric, rehabilitation, acute long-term care hospital, children's general medical and surgical, and other types of services. <sup>d</sup>Physicians, residents, interns, and other trainees omitted from staff count. <sup>e</sup>Full-time and part-time personnel only; excludes full-time and part-time equivalent personnel.

## Appendix A3. Clinical Learning Environments Visited: Number of Programs at Site<sup>a</sup>

|                                        | SIIs with CLER Visits<br>% |
|----------------------------------------|----------------------------|
| <b>Total</b>                           | n=297                      |
| <b>Number of Programs at Site</b>      |                            |
| <7 programs                            | 25.3                       |
| 7-15 programs                          | 24.9                       |
| 16-43 programs                         | 25.6                       |
| >43 programs                           | 24.2                       |
| <b>Number of Core Programs at Site</b> |                            |
| <5 core programs                       | 33.0                       |
| 5-8 core programs                      | 19.2                       |
| 9-19 core programs                     | 23.2                       |
| >19 core programs                      | 24.6                       |

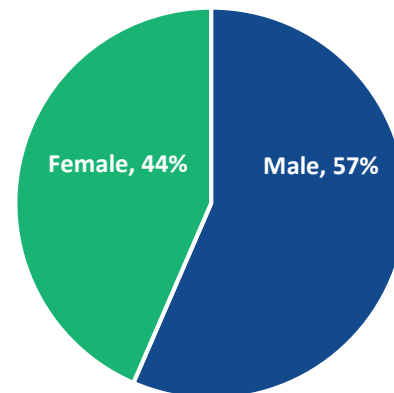
Note. <sup>a</sup>Based on the 2014 Accreditation Council for Graduate Medical Education data.

## Appendix A4. CLER Visits: Characteristics of Groups Interviewed<sup>a</sup>

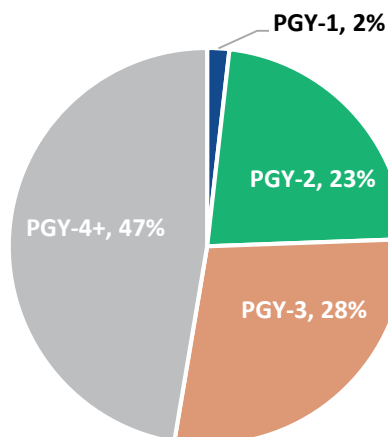
### A4.1. Selected Characteristics of Residents and Fellows in the Group Interviews

|                           | %       |
|---------------------------|---------|
| <b>Total</b>              | N=8,755 |
| <b>Gender*</b>            |         |
| Male                      | 56.5    |
| Female                    | 43.5    |
| <b>Level of Training*</b> |         |
| PGY-1                     | 1.8     |
| PGY-2                     | 22.6    |
| PGY-3                     | 28.2    |
| PGY-4+                    | 47.3    |
| <b>Specialty Group*</b>   |         |
| Medical                   | 52.2    |
| Surgical                  | 25.3    |
| Hospital-based            | 22.6    |

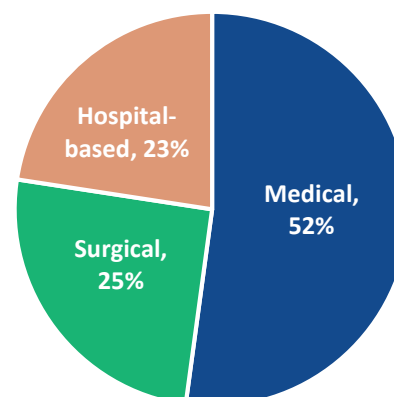
**Gender**



**Level of Training**



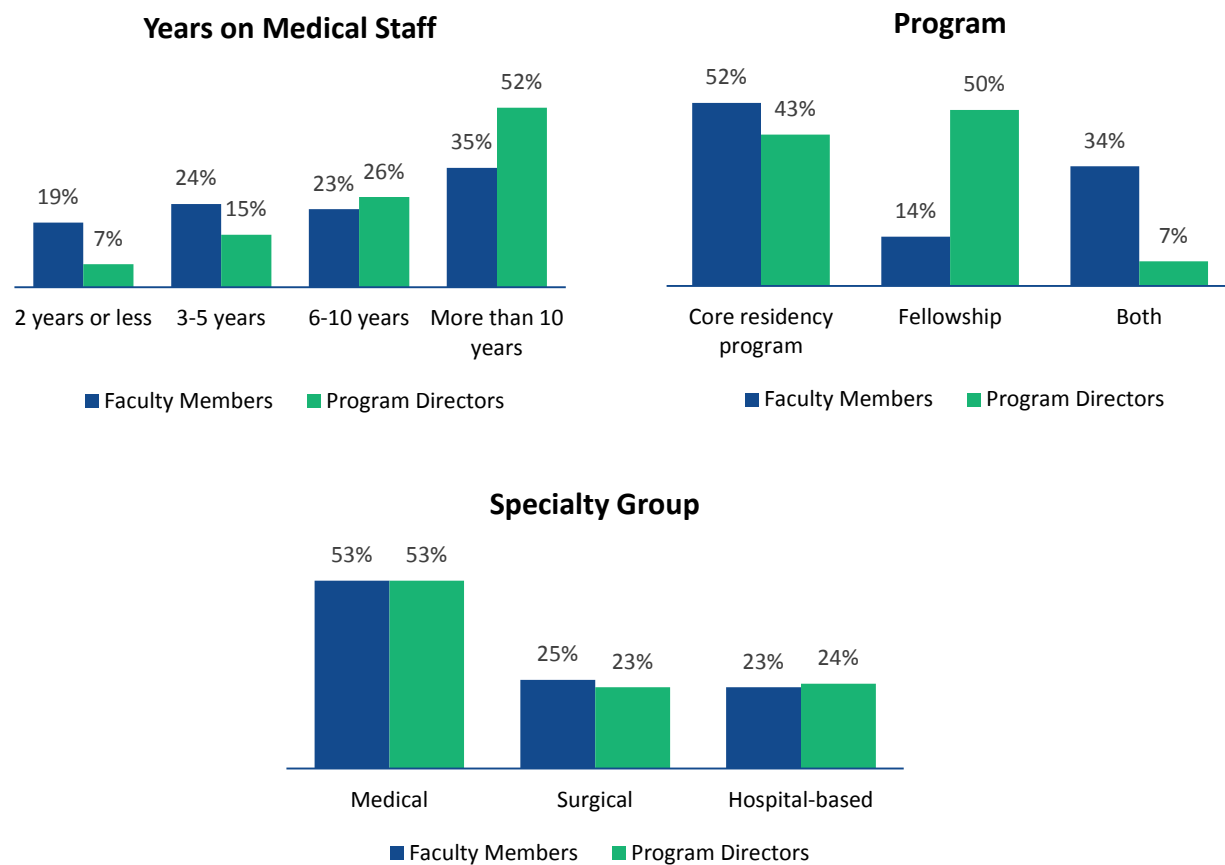
**Specialty Group**



Note. <sup>a</sup>Based on audience response system data. \*Missing data (<2.0%) has been omitted; percentages based on valid percent.

#### A4.2. Selected Characteristics of Faculty Members and Program Directors in the Group Interviews

|                                                       | Faculty Members<br>% | Program Directors<br>% |
|-------------------------------------------------------|----------------------|------------------------|
| <b>Total</b>                                          | N=7,740              | N=5,599                |
| <b>Number of Years at Hospital or Medical Center*</b> |                      |                        |
| 2 years or less                                       | 18.7                 | 6.7                    |
| 3-5 years                                             | 24.1                 | 15.2                   |
| 6-10 years                                            | 22.6                 | 26.1                   |
| More than 10 years                                    | 34.6                 | 52.0                   |
| <b>Program*</b>                                       |                      |                        |
| Core residency program                                | 51.8                 | 43.1                   |
| Fellowship                                            | 14.2                 | 49.8                   |
| Both                                                  | 34.0                 | 7.1                    |
| <b>Specialty Group*</b>                               |                      |                        |
| Medical                                               | 52.9                 | 52.8                   |
| Surgical                                              | 24.5                 | 23.1                   |
| Hospital-based                                        | 22.6                 | 24.1                   |



Note. \*Missing data (<2.0%) has been omitted; percentages based on valid percent.

## Appendix B. Selected Results from Resident and Fellow Group Interviews<sup>a</sup>

### B1. Percentage of residents and fellows who reported knowing the clinical site's priorities in the area of patient safety

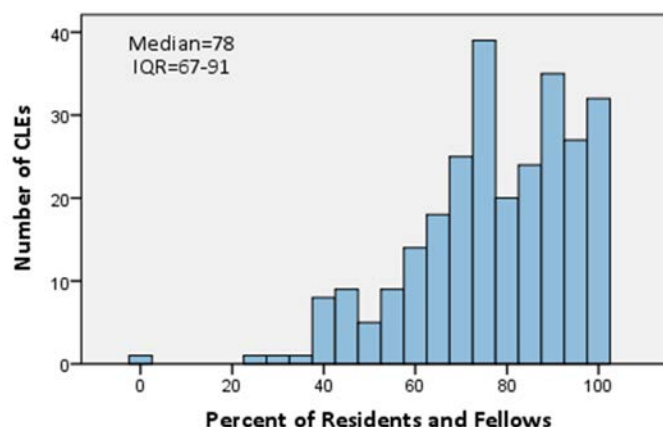
Percent of Total Surveyed<sup>b</sup> (n=8,663)

**74**

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,663)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| <b>Gender*</b>                                                        |  |    |
| Male                                                                  |  | 73 |
| Female                                                                |  | 76 |
| <b>Level of Training</b>                                              |  |    |
| PGY-1                                                                 |  | 80 |
| PGY-2                                                                 |  | 75 |
| PGY-3                                                                 |  | 74 |
| PGY-4+                                                                |  | 74 |
| <b>Specialty Group*</b>                                               |  |    |
| Medical                                                               |  | 73 |
| Surgical                                                              |  | 76 |
| Hospital-based                                                        |  | 76 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| <b>Region<sup>c*</sup></b>                                            |  |    |
| Northeast                                                             |  | 76 |
| Midwest                                                               |  | 75 |
| South                                                                 |  | 72 |
| West                                                                  |  | 72 |
| <b>Bed Size**</b>                                                     |  |    |
| <200 beds                                                             |  | 79 |
| 200-299 beds                                                          |  | 83 |
| 300-399 beds                                                          |  | 77 |
| 400-499 beds                                                          |  | 73 |
| 500 or more beds                                                      |  | 73 |
| <b>Type of Ownership*</b>                                             |  |    |
| Nongovernment, not-for-profit                                         |  | 74 |
| Investor-owned, for-profit                                            |  | 78 |
| Government, federal                                                   |  | 84 |
| Government, nonfederal                                                |  | 73 |

Distribution across CLEs<sup>d</sup>



Note. <sup>a</sup>All percentages are rounded to whole numbers (values of .50 or above are rounded to the next highest whole number). <sup>b</sup>Missing data=92. <sup>c</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>d</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.01. \*\*Statistically significant at p<.0001.

## B2. Percentage of residents and fellows who reported knowing the clinical site's process for reporting an adverse event, near miss/close call, or unsafe condition in patient care

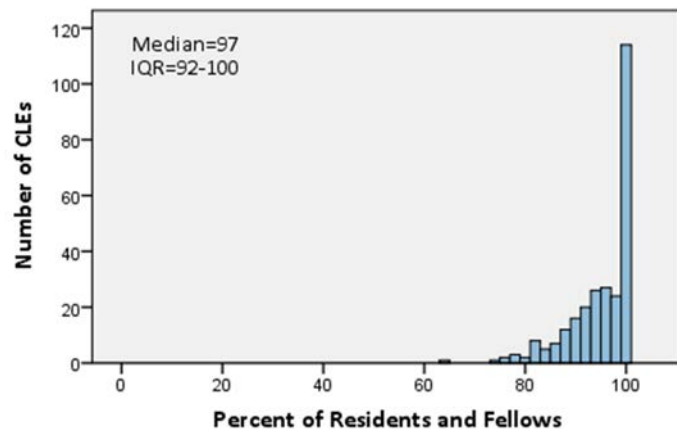
Percent of Total Surveyed<sup>a</sup> (n=8,616)

94

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,616)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| <b>Gender</b>                                                         |                               |    |
|                                                                       | Male                          | 94 |
|                                                                       | Female                        | 95 |
| <b>Level of Training*</b>                                             |                               |    |
|                                                                       | PGY-1                         | 91 |
|                                                                       | PGY-2                         | 95 |
|                                                                       | PGY-3                         | 95 |
|                                                                       | PGY-4+                        | 94 |
| <b>Specialty Group</b>                                                |                               |    |
|                                                                       | Medical                       | 95 |
|                                                                       | Surgical                      | 94 |
|                                                                       | Hospital-based                | 94 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| <b>Region<sup>b*</sup></b>                                            |                               |    |
|                                                                       | Northeast                     | 95 |
|                                                                       | Midwest                       | 95 |
|                                                                       | South                         | 94 |
|                                                                       | West                          | 93 |
| <b>Bed Size**</b>                                                     |                               |    |
|                                                                       | <200 beds                     | 98 |
|                                                                       | 200-299 beds                  | 97 |
|                                                                       | 300-399 beds                  | 96 |
|                                                                       | 400-499 beds                  | 93 |
|                                                                       | 500 or more beds              | 94 |
| <b>Type of Ownership*</b>                                             |                               |    |
|                                                                       | Nongovernment, not-for-profit | 94 |
|                                                                       | Investor-owned, for-profit    | 95 |
|                                                                       | Government, federal           | 98 |
|                                                                       | Government, nonfederal        | 93 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=139. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.05. \*\*Statistically significant at p<.0001.



### B3. Percentage of residents and fellows who reported experiencing an adverse event, near miss/close call, or unsafe condition

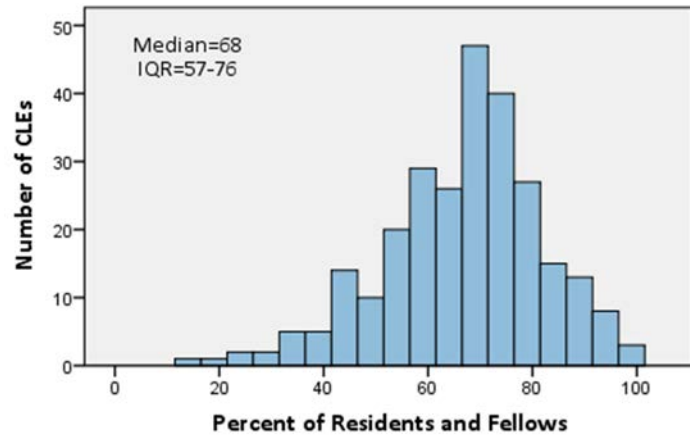
Percent of Total Surveyed<sup>a</sup> (n=8,629)

68

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,629)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| <b>Gender*</b>                                                        |  |    |
| Male                                                                  |  | 67 |
| Female                                                                |  | 70 |
| <b>Level of Training**</b>                                            |  |    |
| PGY-1                                                                 |  | 50 |
| PGY-2                                                                 |  | 68 |
| PGY-3                                                                 |  | 74 |
| PGY-4+                                                                |  | 66 |
| <b>Specialty Group**</b>                                              |  |    |
| Medical                                                               |  | 68 |
| Surgical                                                              |  | 71 |
| Hospital-based                                                        |  | 64 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| <b>Region<sup>b</sup></b>                                             |  |    |
| Northeast                                                             |  | 68 |
| Midwest                                                               |  | 68 |
| South                                                                 |  | 68 |
| West                                                                  |  | 67 |
| <b>Bed Size</b>                                                       |  |    |
| <200 beds                                                             |  | 62 |
| 200-299 beds                                                          |  | 68 |
| 300-399 beds                                                          |  | 70 |
| 400-499 beds                                                          |  | 67 |
| 500 or more beds                                                      |  | 68 |
| <b>Type of Ownership</b>                                              |  |    |
| Nongovernment, not-for-profit                                         |  | 68 |
| Investor-owned, for-profit                                            |  | 66 |
| Government, federal                                                   |  | 71 |
| Government, nonfederal                                                |  | 68 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=126. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.01. \*\*Statistically significant at p<.0001.

**B4. Percentage of residents and fellows who reported experiencing an adverse event, near miss/close call, or unsafe condition and submitted a report through the clinical site's reporting system**

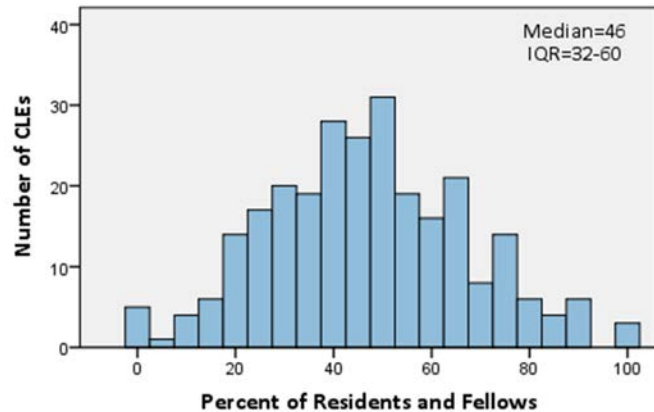
Percent of Total Surveyed<sup>a</sup> (n=5,768)

**47**

**Percent by Resident and Fellow Characteristics and CLE Characteristics (n=5,768)**

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| Gender                                                                |                               |    |
|                                                                       | Male                          | 47 |
|                                                                       | Female                        | 47 |
| Level of Training*                                                    |                               |    |
|                                                                       | PGY-1                         | 36 |
|                                                                       | PGY-2                         | 47 |
|                                                                       | PGY-3                         | 48 |
|                                                                       | PGY-4+                        | 46 |
| Specialty Group*                                                      |                               |    |
|                                                                       | Medical                       | 51 |
|                                                                       | Surgical                      | 46 |
|                                                                       | Hospital-based                | 37 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| Region <sup>b*</sup>                                                  |                               |    |
|                                                                       | Northeast                     | 50 |
|                                                                       | Midwest                       | 48 |
|                                                                       | South                         | 44 |
|                                                                       | West                          | 42 |
| Bed Size*                                                             |                               |    |
|                                                                       | <200 beds                     | 48 |
|                                                                       | 200-299 beds                  | 61 |
|                                                                       | 300-399 beds                  | 49 |
|                                                                       | 400-499 beds                  | 45 |
|                                                                       | 500 or more beds              | 45 |
| Type of Ownership*                                                    |                               |    |
|                                                                       | Nongovernment, not-for-profit | 48 |
|                                                                       | Investor-owned, for-profit    | 38 |
|                                                                       | Government, federal           | 57 |
|                                                                       | Government, nonfederal        | 45 |

**Distribution across CLEs<sup>c</sup>**



Note. <sup>a</sup>Missing data=98. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.0001.

## B5. Percentage of residents and fellows who reported a near miss/close call event

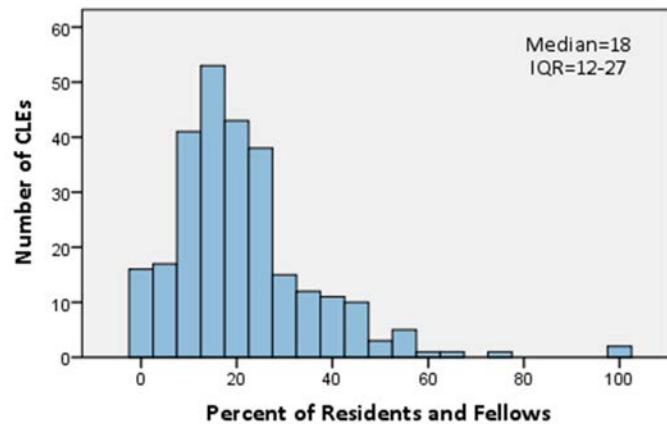
Percent of Total Surveyed<sup>a</sup> (n=8,665)

20

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,665)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| <b>Gender</b>                                                         |                               |    |
|                                                                       | Male                          | 20 |
|                                                                       | Female                        | 21 |
| <b>Level of Training**</b>                                            |                               |    |
|                                                                       | PGY-1                         | 12 |
|                                                                       | PGY-2                         | 20 |
|                                                                       | PGY-3                         | 23 |
|                                                                       | PGY-4+                        | 19 |
| <b>Specialty Group**</b>                                              |                               |    |
|                                                                       | Medical                       | 22 |
|                                                                       | Surgical                      | 19 |
|                                                                       | Hospital-based                | 17 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| <b>Region<sup>b**</sup></b>                                           |                               |    |
|                                                                       | Northeast                     | 23 |
|                                                                       | Midwest                       | 19 |
|                                                                       | South                         | 19 |
|                                                                       | West                          | 17 |
| <b>Bed Size**</b>                                                     |                               |    |
|                                                                       | <200 beds                     | 16 |
|                                                                       | 200-299 beds                  | 26 |
|                                                                       | 300-399 beds                  | 21 |
|                                                                       | 400-499 beds                  | 18 |
|                                                                       | 500 or more beds              | 20 |
| <b>Type of Ownership*</b>                                             |                               |    |
|                                                                       | Nongovernment, not-for-profit | 21 |
|                                                                       | Investor-owned, for-profit    | 20 |
|                                                                       | Government, federal           | 23 |
|                                                                       | Government, nonfederal        | 18 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=90. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.01. \*\*Statistically significant at p<.0001.

## B6. Percentage of residents and fellows who reported receiving feedback on the outcome of a report submitted<sup>a</sup> through the clinical site's reporting system

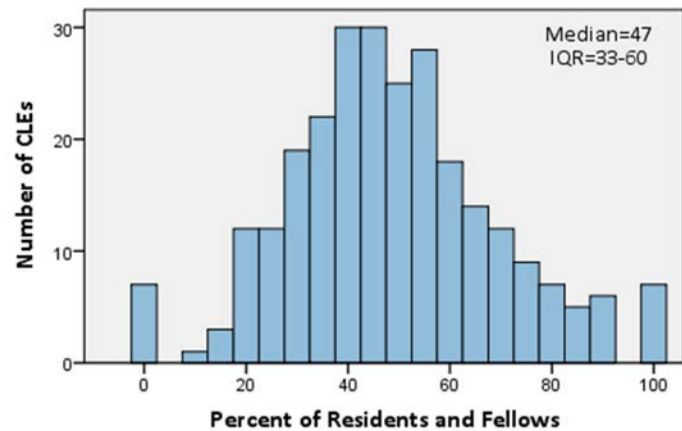
Percent of Total Surveyed<sup>b</sup> (n=4,828)

47

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=4,828)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| <b>Gender**</b>                                                       |  |    |
| Male                                                                  |  | 50 |
| Female                                                                |  | 44 |
| <b>Level of Training**</b>                                            |  |    |
| PGY-1                                                                 |  | 36 |
| PGY-2                                                                 |  | 41 |
| PGY-3                                                                 |  | 45 |
| PGY-4+                                                                |  | 52 |
| <b>Specialty Group*</b>                                               |  |    |
| Medical                                                               |  | 44 |
| Surgical                                                              |  | 50 |
| Hospital-based                                                        |  | 49 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| <b>Region<sup>c</sup></b>                                             |  |    |
| Northeast                                                             |  | 48 |
| Midwest                                                               |  | 46 |
| South                                                                 |  | 46 |
| West                                                                  |  | 47 |
| <b>Bed Size</b>                                                       |  |    |
| <200 beds                                                             |  | 52 |
| 200-299 beds                                                          |  | 49 |
| 300-399 beds                                                          |  | 49 |
| 400-499 beds                                                          |  | 43 |
| 500 or more beds                                                      |  | 46 |
| <b>Type of Ownership</b>                                              |  |    |
| Nongovernment, not-for-profit                                         |  | 47 |
| Investor-owned, for-profit                                            |  | 41 |
| Government, federal                                                   |  | 46 |
| Government, nonfederal                                                |  | 47 |

Distribution across CLEs<sup>d</sup>



Note. <sup>a</sup>Report submitted by resident or fellow or through a nurse or supervisor. <sup>b</sup>Missing data=426. <sup>c</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>d</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.01. \*\*Statistically significant at p<.0001.

**B7. Percentage of residents and fellows (PGY-3 and above) who reported participating in an interprofessional (physicians, nurses, administrators, others) investigation of a patient event (e.g., root cause analysis)**

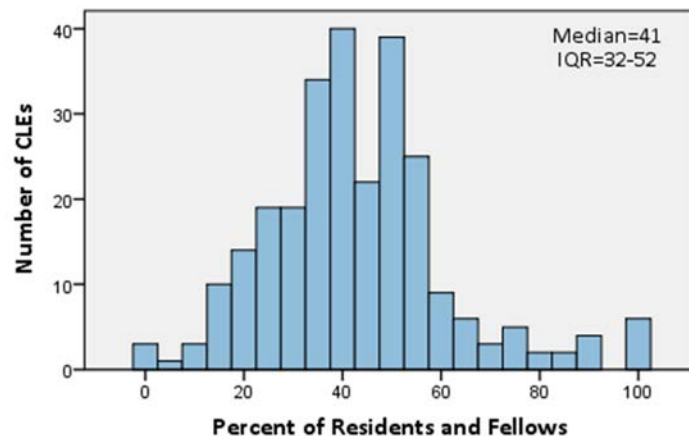
Percent of Total Surveyed<sup>a</sup> (n=6,369)

**41**

**Percent by Resident and Fellow Characteristics and CLE Characteristics (n=6,369)**

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| <b>Gender</b>                                                         |                               |    |
|                                                                       | Male                          | 40 |
|                                                                       | Female                        | 42 |
| <b>Level of Training</b>                                              |                               |    |
|                                                                       | PGY-3                         | 42 |
|                                                                       | PGY-4+                        | 40 |
| <b>Specialty Group**</b>                                              |                               |    |
|                                                                       | Medical                       | 40 |
|                                                                       | Surgical                      | 45 |
|                                                                       | Hospital-based                | 37 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| <b>Region<sup>b**</sup></b>                                           |                               |    |
|                                                                       | Northeast                     | 44 |
|                                                                       | Midwest                       | 40 |
|                                                                       | South                         | 37 |
|                                                                       | West                          | 42 |
| <b>Bed Size</b>                                                       |                               |    |
|                                                                       | <200 beds                     | 41 |
|                                                                       | 200-299 beds                  | 41 |
|                                                                       | 300-399 beds                  | 38 |
|                                                                       | 400-499 beds                  | 39 |
|                                                                       | 500 or more beds              | 42 |
| <b>Type of Ownership*</b>                                             |                               |    |
|                                                                       | Nongovernment, not-for-profit | 42 |
|                                                                       | Investor-owned, for-profit    | 35 |
|                                                                       | Government, federal           | 41 |
|                                                                       | Government, nonfederal        | 38 |

**Distribution across CLEs<sup>c</sup>**



Note. <sup>a</sup>Missing data=120. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.01. \*\*Statistically significant at p<.0001.

## B8. Percentage of residents and fellows (PGY-2 and above) who reported knowing the clinical site's priorities in the area of quality improvement

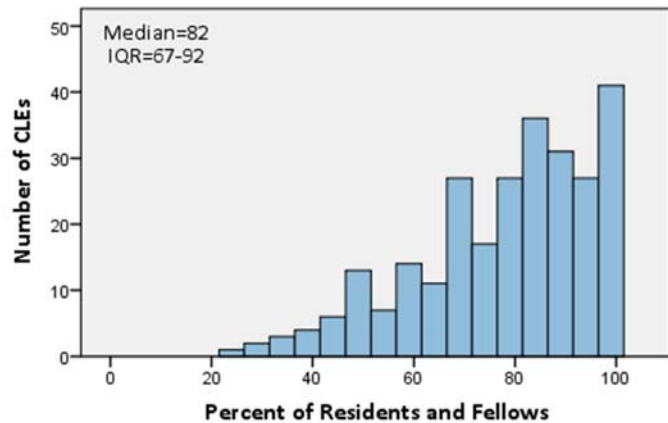
Percent of Total Surveyed<sup>a</sup> (n=8,315)

74

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,315)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| <b>Gender</b>                                                         |  |    |
| Male                                                                  |  | 74 |
| Female                                                                |  | 75 |
| <b>Level of Training**</b>                                            |  |    |
| PGY-2                                                                 |  | 77 |
| PGY-3                                                                 |  | 75 |
| PGY-4+                                                                |  | 73 |
| <b>Specialty Group***</b>                                             |  |    |
| Medical                                                               |  | 75 |
| Surgical                                                              |  | 78 |
| Hospital-based                                                        |  | 69 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| <b>Region<sup>b*</sup></b>                                            |  |    |
| Northeast                                                             |  | 76 |
| Midwest                                                               |  | 74 |
| South                                                                 |  | 74 |
| West                                                                  |  | 73 |
| <b>Bed Size***</b>                                                    |  |    |
| <200 beds                                                             |  | 76 |
| 200-299 beds                                                          |  | 86 |
| 300-399 beds                                                          |  | 76 |
| 400-499 beds                                                          |  | 73 |
| 500 or more beds                                                      |  | 73 |
| <b>Type of Ownership***</b>                                           |  |    |
| Nongovernment, not-for-profit                                         |  | 75 |
| Investor-owned, for-profit                                            |  | 83 |
| Government, federal                                                   |  | 75 |
| Government, nonfederal                                                |  | 71 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=112. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at  $p<.05$ . \*\*Statistically significant at  $p<.01$ . \*\*\*Statistically significant at  $p<.0001$ .

**B9. Percentage of residents and fellows (PGY-2 and above) who reported participating in a quality improvement project of their own design or one designed by their program or department**

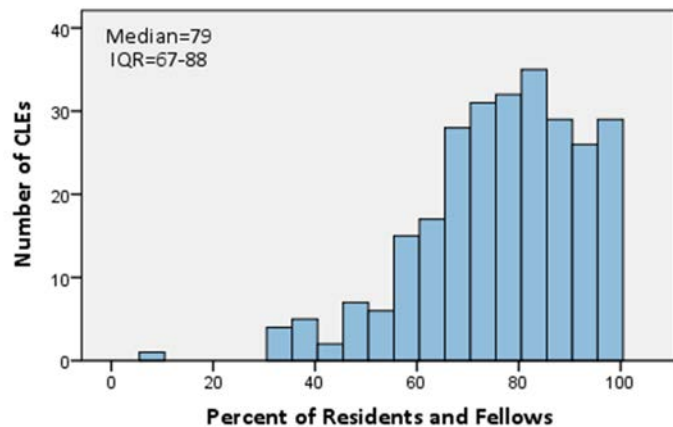
Percent of Total Surveyed<sup>a</sup> (n=8,298)

76

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,298)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| <b>Gender*</b>                                                        |  |    |
| Male                                                                  |  | 75 |
| Female                                                                |  | 77 |
| <b>Level of Training***</b>                                           |  |    |
| PGY-2                                                                 |  | 72 |
| PGY-3                                                                 |  | 78 |
| PGY-4+                                                                |  | 77 |
| <b>Specialty Group***</b>                                             |  |    |
| Medical                                                               |  | 81 |
| Surgical                                                              |  | 66 |
| Hospital-based                                                        |  | 75 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| <b>Region<sup>b**</sup></b>                                           |  |    |
| Northeast                                                             |  | 78 |
| Midwest                                                               |  | 74 |
| South                                                                 |  | 76 |
| West                                                                  |  | 76 |
| <b>Bed Size**</b>                                                     |  |    |
| <200 beds                                                             |  | 83 |
| 200-299 beds                                                          |  | 78 |
| 300-399 beds                                                          |  | 77 |
| 400-499 beds                                                          |  | 75 |
| 500 or more beds                                                      |  | 75 |
| <b>Type of Ownership*</b>                                             |  |    |
| Nongovernment, not-for-profit                                         |  | 76 |
| Investor-owned, for-profit                                            |  | 80 |
| Government, federal                                                   |  | 82 |
| Government, nonfederal                                                |  | 75 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=129. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.05. \*\*Statistically significant at p<.01. \*\*\*Statistically significant at p<.0001.

## B10. Percentage of residents and fellows who reported participating in a quality improvement project linked to one or more of the clinical site's quality improvement goals

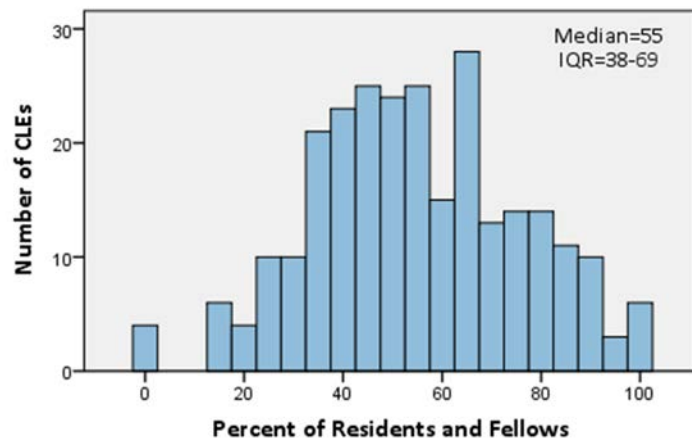
Percent of Total Surveyed<sup>a</sup> (n=6,154)

52

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=6,154)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| Gender                                                                |                               |    |
|                                                                       | Male                          | 52 |
|                                                                       | Female                        | 53 |
| Level of Training**                                                   |                               |    |
|                                                                       | PGY-2                         | 57 |
|                                                                       | PGY-3                         | 52 |
|                                                                       | PGY-4+                        | 50 |
| Specialty Group**                                                     |                               |    |
|                                                                       | Medical                       | 52 |
|                                                                       | Surgical                      | 59 |
|                                                                       | Hospital-based                | 45 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| Region <sup>b**</sup>                                                 |                               |    |
|                                                                       | Northeast                     | 56 |
|                                                                       | Midwest                       | 49 |
|                                                                       | South                         | 51 |
|                                                                       | West                          | 52 |
| Bed Size**                                                            |                               |    |
|                                                                       | <200 beds                     | 55 |
|                                                                       | 200-299 beds                  | 66 |
|                                                                       | 300-399 beds                  | 50 |
|                                                                       | 400-499 beds                  | 55 |
|                                                                       | 500 or more beds              | 50 |
| Type of Ownership*                                                    |                               |    |
|                                                                       | Nongovernment, not-for-profit | 53 |
|                                                                       | Investor-owned, for-profit    | 46 |
|                                                                       | Government, federal           | 58 |
|                                                                       | Government, nonfederal        | 50 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=135. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.05. \*\*Statistically significant at p<.0001.



**B11. Percentage of residents and fellows who reported being engaged in interprofessional quality improvement teams (e.g., nurses, administrators, pharmacists, etc.) while participating in a quality improvement project directly linked to one or more of the clinical site's quality improvement goals**

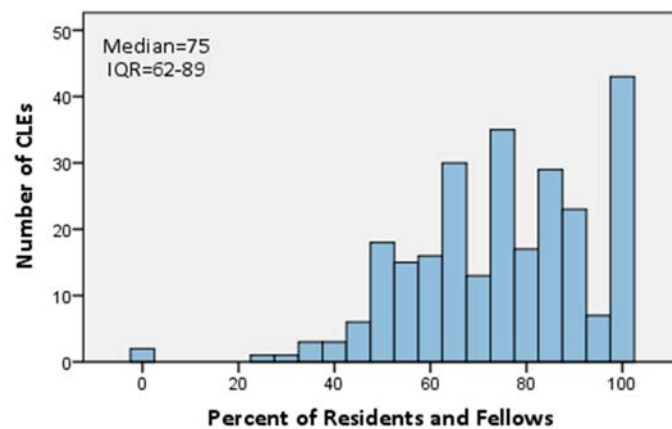
**Percent of Total Surveyed<sup>a</sup> (n=3,133)**

**75**

**Percent by Resident and Fellow Characteristics and CLE Characteristics (n=3,133)**

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| Gender                                                                |                               |    |
|                                                                       | Male                          | 75 |
|                                                                       | Female                        | 74 |
| Level of Training                                                     |                               |    |
|                                                                       | PGY-2                         | 75 |
|                                                                       | PGY-3                         | 73 |
|                                                                       | PGY-4+                        | 75 |
| Specialty Group*                                                      |                               |    |
|                                                                       | Medical                       | 74 |
|                                                                       | Surgical                      | 78 |
|                                                                       | Hospital-based                | 70 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| Region <sup>b**</sup>                                                 |                               |    |
|                                                                       | Northeast                     | 74 |
|                                                                       | Midwest                       | 79 |
|                                                                       | South                         | 73 |
|                                                                       | West                          | 70 |
| Bed Size*                                                             |                               |    |
|                                                                       | <200 beds                     | 70 |
|                                                                       | 200-299 beds                  | 80 |
|                                                                       | 300-399 beds                  | 71 |
|                                                                       | 400-499 beds                  | 71 |
|                                                                       | 500 or more beds              | 75 |
| Type of Ownership                                                     |                               |    |
|                                                                       | Nongovernment, not-for-profit | 75 |
|                                                                       | Investor-owned, for-profit    | 67 |
|                                                                       | Government, federal           | 73 |
|                                                                       | Government, nonfederal        | 75 |

**Distribution across CLEs<sup>c</sup>**



Note. <sup>a</sup>Missing data=88. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 88% or more of the 297 CLEs. \*Statistically significant at p<.01. \*\*Statistically significant at p<.0001.

## B12. Percentage of residents and fellows who reported having ready access to organized systems for collecting and analyzing data for the purpose of quality improvement

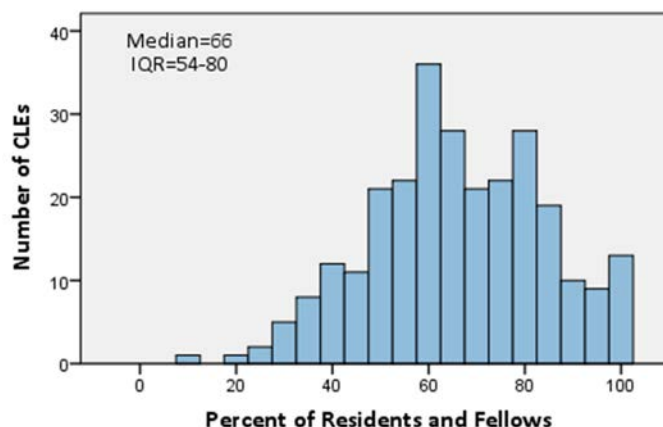
Percent of Total Surveyed<sup>a</sup> (n=8,549)

63

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,549)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| <b>Gender</b>                                                         |                               |    |
|                                                                       | Male                          | 62 |
|                                                                       | Female                        | 63 |
| <b>Level of Training</b>                                              |                               |    |
|                                                                       | PGY-1                         | 58 |
|                                                                       | PGY-2                         | 61 |
|                                                                       | PGY-3                         | 62 |
|                                                                       | PGY-4+                        | 64 |
| <b>Specialty Group</b>                                                |                               |    |
|                                                                       | Medical                       | 62 |
|                                                                       | Surgical                      | 62 |
|                                                                       | Hospital-based                | 65 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| <b>Region<sup>b</sup></b>                                             |                               |    |
|                                                                       | Northeast                     | 64 |
|                                                                       | Midwest                       | 62 |
|                                                                       | South                         | 63 |
|                                                                       | West                          | 63 |
| <b>Bed Size<sup>**</sup></b>                                          |                               |    |
|                                                                       | <200 beds                     | 70 |
|                                                                       | 200-299 beds                  | 67 |
|                                                                       | 300-399 beds                  | 63 |
|                                                                       | 400-499 beds                  | 62 |
|                                                                       | 500 or more beds              | 62 |
| <b>Type of Ownership<sup>*</sup></b>                                  |                               |    |
|                                                                       | Nongovernment, not-for-profit | 64 |
|                                                                       | Investor-owned, for-profit    | 58 |
|                                                                       | Government, federal           | 66 |
|                                                                       | Government, nonfederal        | 61 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=206. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at  $p < .05$ . \*\*Statistically significant at  $p < .01$ .

### B13. Percentage of residents and fellows who reported knowing the clinical site's priorities with regard to addressing health care disparities

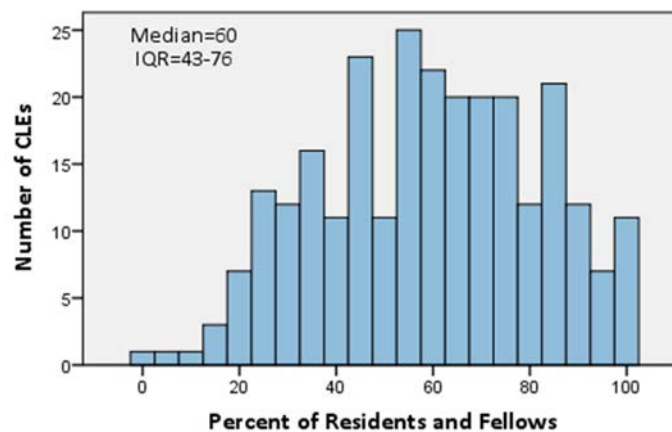
Percent of Total Surveyed<sup>a</sup> (n=8,607)

55

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,607)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| <b>Gender</b>                                                         |                               |    |
|                                                                       | Male                          | 55 |
|                                                                       | Female                        | 56 |
| <b>Level of Training**</b>                                            |                               |    |
|                                                                       | PGY-1                         | 63 |
|                                                                       | PGY-2                         | 59 |
|                                                                       | PGY-3                         | 55 |
|                                                                       | PGY-4+                        | 53 |
| <b>Specialty Group*</b>                                               |                               |    |
|                                                                       | Medical                       | 55 |
|                                                                       | Surgical                      | 57 |
|                                                                       | Hospital-based                | 52 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| <b>Region<sup>b**</sup></b>                                           |                               |    |
|                                                                       | Northeast                     | 57 |
|                                                                       | Midwest                       | 56 |
|                                                                       | South                         | 53 |
|                                                                       | West                          | 53 |
| <b>Bed Size**</b>                                                     |                               |    |
|                                                                       | <200 beds                     | 62 |
|                                                                       | 200-299 beds                  | 64 |
|                                                                       | 300-399 beds                  | 58 |
|                                                                       | 400-499 beds                  | 55 |
|                                                                       | 500 or more beds              | 53 |
| <b>Type of Ownership</b>                                              |                               |    |
|                                                                       | Nongovernment, not-for-profit | 55 |
|                                                                       | Investor-owned, for-profit    | 55 |
|                                                                       | Government, federal           | 54 |
|                                                                       | Government, nonfederal        | 56 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=148. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at  $p<.05$ . \*\*Statistically significant at  $p<.0001$ .

## B14. Percentage of residents and fellows who reported following a standardized process for handling transitions of care during hand-offs between shifts

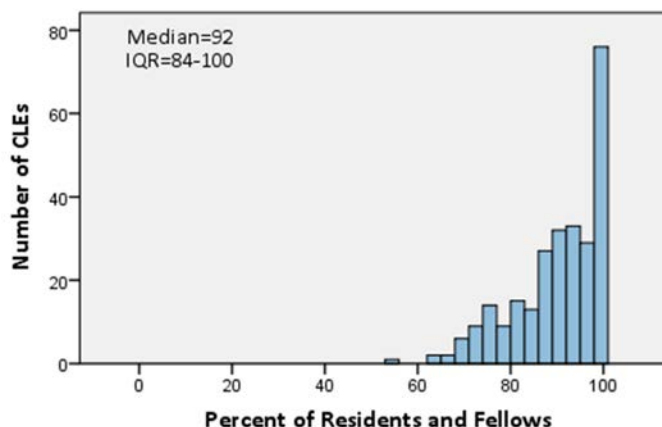
Percent of Total Surveyed<sup>a</sup> (n=8,471)

88

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,471)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| Gender*                                                               |  |    |
| Male                                                                  |  | 87 |
| Female                                                                |  | 89 |
| Level of Training***                                                  |  |    |
| PGY-1                                                                 |  | 94 |
| PGY-2                                                                 |  | 91 |
| PGY-3                                                                 |  | 91 |
| PGY-4+                                                                |  | 84 |
| Specialty Group***                                                    |  |    |
| Medical                                                               |  | 90 |
| Surgical                                                              |  | 90 |
| Hospital-based                                                        |  | 80 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| Region <sup>b**</sup>                                                 |  |    |
| Northeast                                                             |  | 89 |
| Midwest                                                               |  | 86 |
| South                                                                 |  | 88 |
| West                                                                  |  | 88 |
| Bed Size***                                                           |  |    |
| <200 beds                                                             |  | 95 |
| 200-299 beds                                                          |  | 93 |
| 300-399 beds                                                          |  | 89 |
| 400-499 beds                                                          |  | 87 |
| 500 or more beds                                                      |  | 86 |
| Type of Ownership***                                                  |  |    |
| Nongovernment, not-for-profit                                         |  | 87 |
| Investor-owned, for-profit                                            |  | 89 |
| Government, federal                                                   |  | 96 |
| Government, nonfederal                                                |  | 88 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=284. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.05. \*\*Statistically significant at p<.01. \*\*\*Statistically significant at p<.0001.

**B15. Percentage of residents and fellows who reported following a standardized process that included a standardized written template for communication for handling transitions of care during hand-offs between shifts**

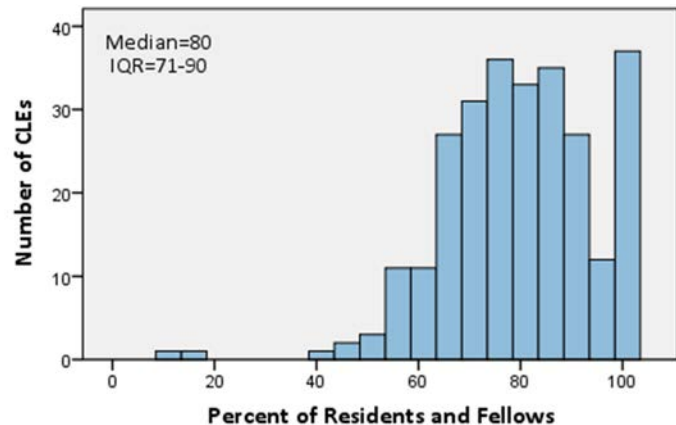
Percent of Total Surveyed<sup>a</sup> (n=7,262)

78

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=7,262)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| <b>Gender*</b>                                                        |                               |    |
|                                                                       | Male                          | 75 |
|                                                                       | Female                        | 82 |
| <b>Level of Training*</b>                                             |                               |    |
|                                                                       | PGY-1                         | 86 |
|                                                                       | PGY-2                         | 84 |
|                                                                       | PGY-3                         | 83 |
|                                                                       | PGY-4+                        | 71 |
| <b>Specialty Group*</b>                                               |                               |    |
|                                                                       | Medical                       | 84 |
|                                                                       | Surgical                      | 76 |
|                                                                       | Hospital-based                | 63 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| <b>Region<sup>b*</sup></b>                                            |                               |    |
|                                                                       | Northeast                     | 80 |
|                                                                       | Midwest                       | 76 |
|                                                                       | South                         | 77 |
|                                                                       | West                          | 76 |
| <b>Bed Size*</b>                                                      |                               |    |
|                                                                       | <200 beds                     | 82 |
|                                                                       | 200-299 beds                  | 85 |
|                                                                       | 300-399 beds                  | 80 |
|                                                                       | 400-499 beds                  | 75 |
|                                                                       | 500 or more beds              | 77 |
| <b>Type of Ownership</b>                                              |                               |    |
|                                                                       | Nongovernment, not-for-profit | 78 |
|                                                                       | Investor-owned, for-profit    | 76 |
|                                                                       | Government, federal           | 84 |
|                                                                       | Government, nonfederal        | 78 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=163. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.0001.

**B16. Percentage of residents and fellows who reported having been placed, or witnessing one of their peers placed, in a situation where they believed there was inadequate supervision at the clinical site (e.g., the attending wasn't available)**

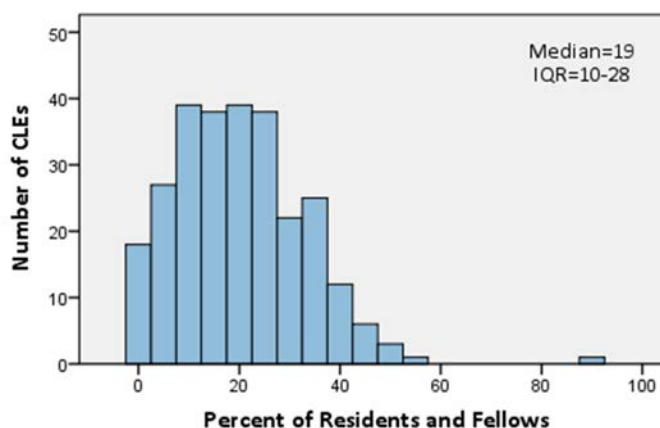
Percent of Total Surveyed<sup>a</sup> (n=8,542)

22

**Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,542)**

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| <b>Gender**</b>                                                       |  |    |
| Male                                                                  |  | 20 |
| Female                                                                |  | 24 |
| <b>Level of Training*</b>                                             |  |    |
| PGY-1                                                                 |  | 17 |
| PGY-2                                                                 |  | 23 |
| PGY-3                                                                 |  | 24 |
| PGY-4+                                                                |  | 20 |
| <b>Specialty Group**</b>                                              |  |    |
| Medical                                                               |  | 21 |
| Surgical                                                              |  | 20 |
| Hospital-based                                                        |  | 26 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| <b>Region<sup>b</sup></b>                                             |  |    |
| Northeast                                                             |  | 21 |
| Midwest                                                               |  | 21 |
| South                                                                 |  | 22 |
| West                                                                  |  | 23 |
| <b>Bed Size</b>                                                       |  |    |
| <200 beds                                                             |  | 17 |
| 200-299 beds                                                          |  | 20 |
| 300-399 beds                                                          |  | 23 |
| 400-499 beds                                                          |  | 23 |
| 500 or more beds                                                      |  | 22 |
| <b>Type of Ownership</b>                                              |  |    |
| Nongovernment, not-for-profit                                         |  | 21 |
| Investor-owned, for-profit                                            |  | 22 |
| Government, federal                                                   |  | 23 |
| Government, nonfederal                                                |  | 23 |

**Distribution across CLEs<sup>c</sup>**



Note. <sup>a</sup>Missing data=213. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.01. \*\*Statistically significant at p<.0001.

## B17. Percentage of residents and fellows who reported knowing what they were allowed to do with and without direct supervision

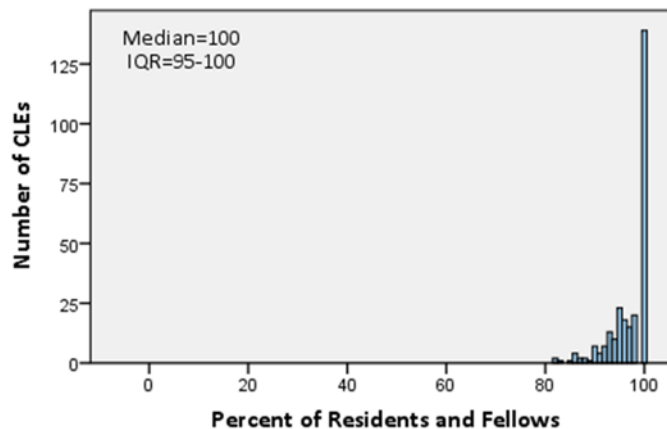
Percent of Total Surveyed<sup>a</sup> (n=8,621)

97

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,621)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| Gender**                                                              |  |    |
| Male                                                                  |  | 96 |
| Female                                                                |  | 97 |
| Level of Training***                                                  |  |    |
| PGY-1                                                                 |  | 92 |
| PGY-2                                                                 |  | 96 |
| PGY-3                                                                 |  | 96 |
| PGY-4+                                                                |  | 97 |
| Specialty Group*                                                      |  |    |
| Medical                                                               |  | 97 |
| Surgical                                                              |  | 97 |
| Hospital-based                                                        |  | 96 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| Region <sup>b</sup>                                                   |  |    |
| Northeast                                                             |  | 97 |
| Midwest                                                               |  | 96 |
| South                                                                 |  | 97 |
| West                                                                  |  | 97 |
| Bed Size                                                              |  |    |
| <200 beds                                                             |  | 98 |
| 200-299 beds                                                          |  | 98 |
| 300-399 beds                                                          |  | 97 |
| 400-499 beds                                                          |  | 96 |
| 500 or more beds                                                      |  | 96 |
| Type of Ownership                                                     |  |    |
| Nongovernment, not-for-profit                                         |  | 97 |
| Investor-owned, for-profit                                            |  | 96 |
| Government, federal                                                   |  | 98 |
| Government, nonfederal                                                |  | 96 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=134. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at  $p < .05$ . \*\*Statistically significant at  $p < .01$ . \*\*\*Statistically significant at  $p < .0001$ .

**B18. Percentage of residents and fellows who reported having an objective way to know what procedures residents and fellows from other services were allowed to do with and without direct supervision when they consulted on patients**

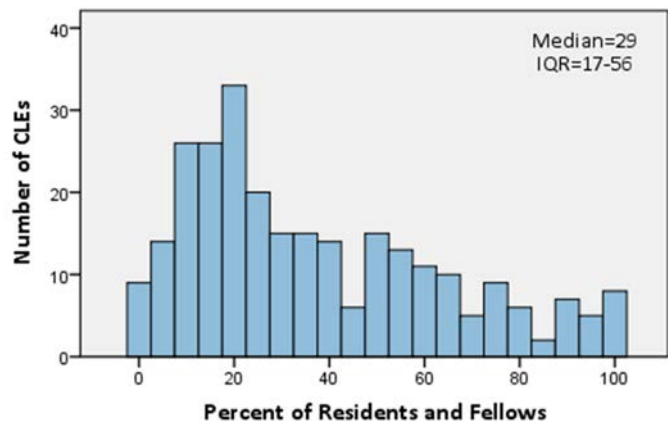
Percent of Total Surveyed<sup>a</sup> (n=8,080)

33

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,080)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| <b>Gender*</b>                                                        |                               |    |
|                                                                       | Male                          | 35 |
|                                                                       | Female                        | 32 |
| <b>Level of Training*</b>                                             |                               |    |
|                                                                       | PGY-1                         | 46 |
|                                                                       | PGY-2                         | 34 |
|                                                                       | PGY-3                         | 32 |
|                                                                       | PGY-4+                        | 33 |
| <b>Specialty Group</b>                                                |                               |    |
|                                                                       | Medical                       | 33 |
|                                                                       | Surgical                      | 35 |
|                                                                       | Hospital-based                | 33 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| <b>Region<sup>b**</sup></b>                                           |                               |    |
|                                                                       | Northeast                     | 37 |
|                                                                       | Midwest                       | 31 |
|                                                                       | South                         | 33 |
|                                                                       | West                          | 30 |
| <b>Bed Size**</b>                                                     |                               |    |
|                                                                       | <200 beds                     | 42 |
|                                                                       | 200-299 beds                  | 52 |
|                                                                       | 300-399 beds                  | 34 |
|                                                                       | 400-499 beds                  | 30 |
|                                                                       | 500 or more beds              | 31 |
| <b>Type of Ownership**</b>                                            |                               |    |
|                                                                       | Nongovernment, not-for-profit | 32 |
|                                                                       | Investor-owned, for-profit    | 39 |
|                                                                       | Government, federal           | 52 |
|                                                                       | Government, nonfederal        | 33 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=675. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.01. \*\*Statistically significant at p<.0001.



**B19. Percentage of residents and fellows who reported that they would power through to hand-off if placed in a situation in which they were impaired by fatigue, maxed out on caffeine, and a 15 minute nap had no effect**

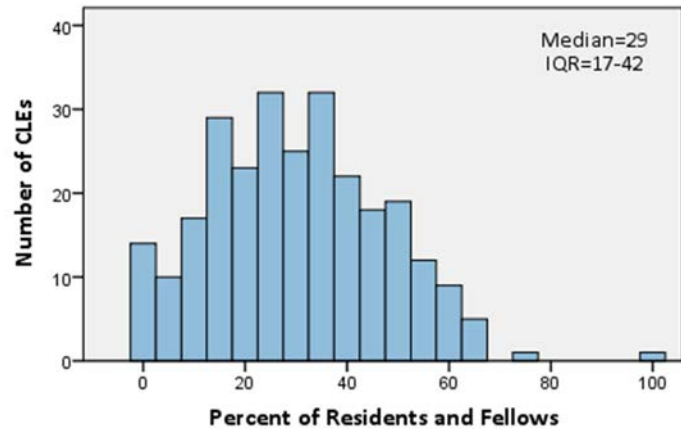
Percent of Total Surveyed<sup>a</sup> (n=8,387)

33

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,387)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |    |
|-----------------------------------------------------------------------|----|
| <b>Gender**</b>                                                       |    |
| Male                                                                  | 30 |
| Female                                                                | 37 |
| <b>Level of Training**</b>                                            |    |
| PGY-1                                                                 | 36 |
| PGY-2                                                                 | 37 |
| PGY-3                                                                 | 36 |
| PGY-4+                                                                | 30 |
| <b>Specialty Group**</b>                                              |    |
| Medical                                                               | 32 |
| Surgical                                                              | 34 |
| Hospital-based                                                        | 35 |
| CLE Region, Bed Size, and Type of Ownership                           |    |
| <b>Region<sup>b*</sup></b>                                            |    |
| Northeast                                                             | 34 |
| Midwest                                                               | 31 |
| South                                                                 | 34 |
| West                                                                  | 35 |
| <b>Bed Size**</b>                                                     |    |
| <200 beds                                                             | 25 |
| 200-299 beds                                                          | 25 |
| 300-399 beds                                                          | 31 |
| 400-499 beds                                                          | 35 |
| 500 or more beds                                                      | 35 |
| <b>Type of Ownership</b>                                              |    |
| Nongovernment, not-for-profit                                         | 34 |
| Investor-owned, for-profit                                            | 31 |
| Government, federal                                                   | 27 |
| Government, nonfederal                                                | 34 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=368. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.05. \*\*Statistically significant at p<.0001.

## B20. Percentage of residents and fellows who reported having attended institutional training on topics of professionalism and ethics

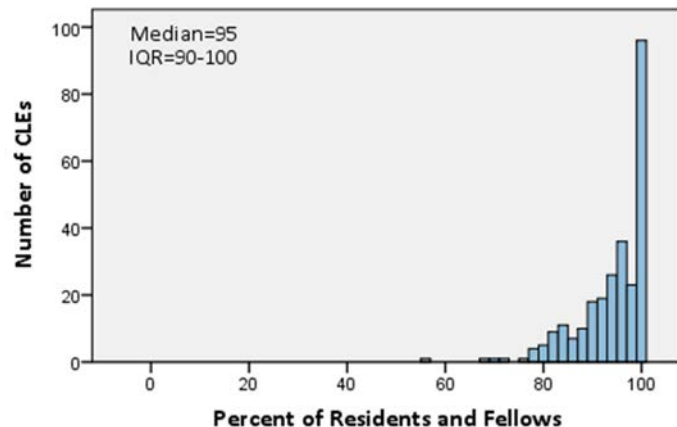
Percent of Total Surveyed<sup>a</sup> (n=8,631)

93

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,631)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| Gender                                                                |  |    |
| Male                                                                  |  | 93 |
| Female                                                                |  | 93 |
| Level of Training*                                                    |  |    |
| PGY-1                                                                 |  | 95 |
| PGY-2                                                                 |  | 95 |
| PGY-3                                                                 |  | 93 |
| PGY-4+                                                                |  | 92 |
| Specialty Group                                                       |  |    |
| Medical                                                               |  | 93 |
| Surgical                                                              |  | 93 |
| Hospital-based                                                        |  | 92 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| Region <sup>b*</sup>                                                  |  |    |
| Northeast                                                             |  | 92 |
| Midwest                                                               |  | 92 |
| South                                                                 |  | 93 |
| West                                                                  |  | 94 |
| Bed Size*                                                             |  |    |
| <200 beds                                                             |  | 96 |
| 200-299 beds                                                          |  | 93 |
| 300-399 beds                                                          |  | 95 |
| 400-499 beds                                                          |  | 94 |
| 500 or more beds                                                      |  | 92 |
| Type of Ownership                                                     |  |    |
| Nongovernment, not-for-profit                                         |  | 93 |
| Investor-owned, for-profit                                            |  | 94 |
| Government, federal                                                   |  | 96 |
| Government, nonfederal                                                |  | 93 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=124. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at  $p < .01$ .

**B21. Percentage of residents and fellows who reported that their clinical site provided a supportive, non-punitive environment for coming forward with concerns regarding honesty in reporting (e.g., patient data, duty hours)**

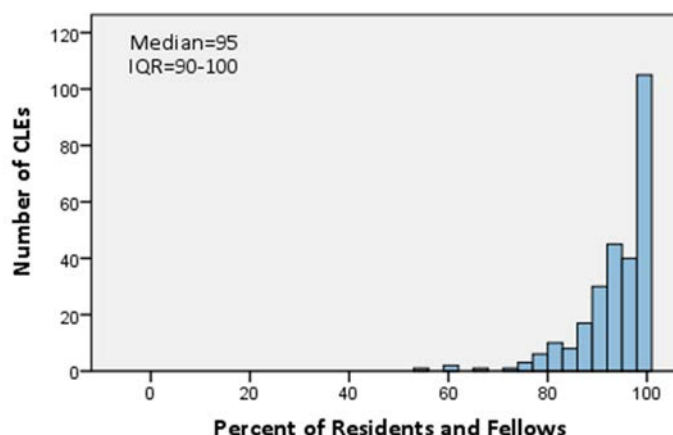
**Percent of Total Surveyed<sup>a</sup> (n=8,592)**

**93**

**Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,592)**

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| Gender*                                                               |  |    |
| Male                                                                  |  | 94 |
| Female                                                                |  | 92 |
| Level of Training                                                     |  |    |
| PGY-1                                                                 |  | 94 |
| PGY-2                                                                 |  | 93 |
| PGY-3                                                                 |  | 93 |
| PGY-4+                                                                |  | 94 |
| Specialty Group                                                       |  |    |
| Medical                                                               |  | 93 |
| Surgical                                                              |  | 93 |
| Hospital-based                                                        |  | 94 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| Region <sup>b</sup>                                                   |  |    |
| Northeast                                                             |  | 93 |
| Midwest                                                               |  | 94 |
| South                                                                 |  | 93 |
| West                                                                  |  | 93 |
| Bed Size                                                              |  |    |
| <200 beds                                                             |  | 94 |
| 200-299 beds                                                          |  | 91 |
| 300-399 beds                                                          |  | 94 |
| 400-499 beds                                                          |  | 93 |
| 500 or more beds                                                      |  | 94 |
| Type of Ownership                                                     |  |    |
| Nongovernment, not-for-profit                                         |  | 94 |
| Investor-owned, for-profit                                            |  | 94 |
| Government, federal                                                   |  | 91 |
| Government, nonfederal                                                |  | 93 |

**Distribution across CLEs<sup>c</sup>**



Note. <sup>a</sup>Missing data=163. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.05.

## B22. Percentage of residents and fellows who reported having felt pressured to compromise their honesty or integrity to satisfy an authority figure during their training at the clinical site

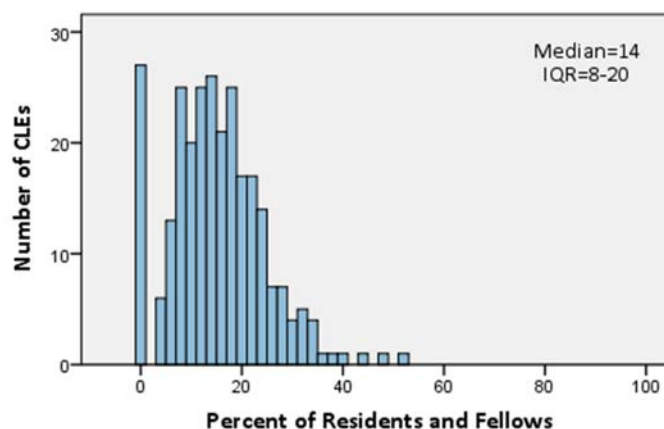
Percent of Total Surveyed<sup>a</sup> (n=8,609)

16

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,609)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |                               |    |
|-----------------------------------------------------------------------|-------------------------------|----|
| <b>Gender</b>                                                         |                               |    |
|                                                                       | Male                          | 15 |
|                                                                       | Female                        | 16 |
| <b>Level of Training</b>                                              |                               |    |
|                                                                       | PGY-1                         | 12 |
|                                                                       | PGY-2                         | 16 |
|                                                                       | PGY-3                         | 15 |
|                                                                       | PGY-4+                        | 16 |
| <b>Specialty Group</b>                                                |                               |    |
|                                                                       | Medical                       | 16 |
|                                                                       | Surgical                      | 16 |
|                                                                       | Hospital-based                | 14 |
| CLE Region, Bed Size, and Type of Ownership                           |                               |    |
| <b>Region<sup>b</sup></b>                                             |                               |    |
|                                                                       | Northeast                     | 17 |
|                                                                       | Midwest                       | 16 |
|                                                                       | South                         | 15 |
|                                                                       | West                          | 15 |
| <b>Bed Size</b>                                                       |                               |    |
|                                                                       | <200 beds                     | 12 |
|                                                                       | 200-299 beds                  | 16 |
|                                                                       | 300-399 beds                  | 15 |
|                                                                       | 400-499 beds                  | 18 |
|                                                                       | 500 or more beds              | 16 |
| <b>Type of Ownership</b>                                              |                               |    |
|                                                                       | Nongovernment, not-for-profit | 16 |
|                                                                       | Investor-owned, for-profit    | 16 |
|                                                                       | Government, federal           | 16 |
|                                                                       | Government, nonfederal        | 15 |

Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=146. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs.

**B23. Percentage of residents and fellows who reported they had documented a history or physical finding in a patient chart that they did not personally elicit at the clinical site (e.g., copying and pasting from another note)**

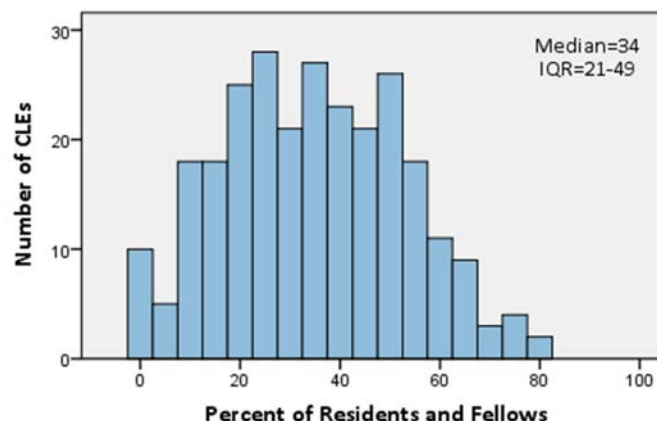
Percent of Total Surveyed<sup>a</sup> (n=8,488)

40

Percent by Resident and Fellow Characteristics and CLE Characteristics (n=8,488)

| Resident and Fellow Gender, Level of Training, and Specialty Grouping |  |    |
|-----------------------------------------------------------------------|--|----|
| Gender*                                                               |  |    |
| Male                                                                  |  | 41 |
| Female                                                                |  | 39 |
| Level of Training                                                     |  |    |
| PGY-1                                                                 |  | 43 |
| PGY-2                                                                 |  | 39 |
| PGY-3                                                                 |  | 41 |
| PGY-4+                                                                |  | 39 |
| Specialty Group                                                       |  |    |
| Medical                                                               |  | 40 |
| Surgical                                                              |  | 42 |
| Hospital-based                                                        |  | 39 |
| CLE Region, Bed Size, and Type of Ownership                           |  |    |
| Region <sup>b**</sup>                                                 |  |    |
| Northeast                                                             |  | 37 |
| Midwest                                                               |  | 39 |
| South                                                                 |  | 41 |
| West                                                                  |  | 46 |
| Bed Size <sup>**</sup>                                                |  |    |
| <200 beds                                                             |  | 32 |
| 200-299 beds                                                          |  | 35 |
| 300-399 beds                                                          |  | 33 |
| 400-499 beds                                                          |  | 39 |
| 500 or more beds                                                      |  | 42 |
| Type of Ownership <sup>**</sup>                                       |  |    |
| Nongovernment, not-for-profit                                         |  | 39 |
| Investor-owned, for-profit                                            |  | 27 |
| Government, federal                                                   |  | 44 |
| Government, nonfederal                                                |  | 42 |

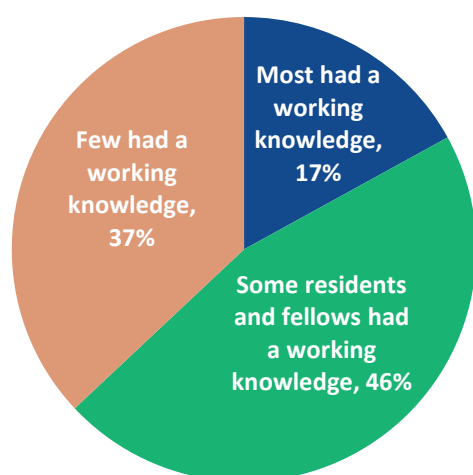
Distribution across CLEs<sup>c</sup>



Note. <sup>a</sup>Missing data=267. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity. <sup>c</sup>Distribution includes 90% or more of the 297 CLEs. \*Statistically significant at p<.05. \*\*Statistically significant at p<.0001.

## Appendix C. Selected Qualitative Results from Site Visit Reports<sup>a</sup>

### C1. Percentage of CLEs by proportion of resident and fellow knowledge of basic patient safety terminology and principles<sup>b</sup>

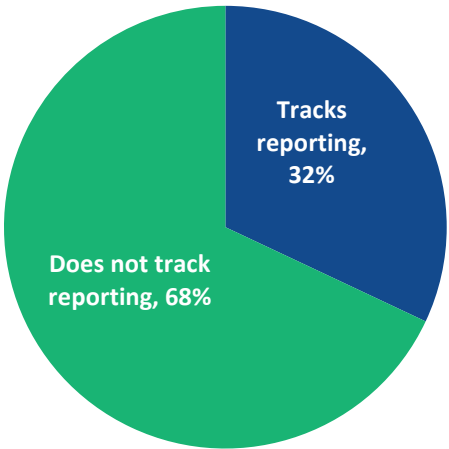


### Percent by CLE Region, Bed Size, and Ownership (% Most)

| Region <sup>c</sup>           |    |
|-------------------------------|----|
| Northeast                     | 13 |
| Midwest                       | 19 |
| South                         | 21 |
| West                          | 14 |
| Bed Size                      |    |
| <200 beds                     | 24 |
| 200-299 beds                  | 31 |
| 300-399 beds                  | 13 |
| 400-499 beds                  | 26 |
| 500 or more beds              | 13 |
| Type of Ownership             |    |
| Nongovernment, not-for-profit | 18 |
| Investor-owned, for-profit    | 13 |
| Government, federal           | 22 |
| Government, nonfederal        | 16 |

Note. <sup>a</sup>Results based on 297 site visit reports; all percentages are rounded to whole numbers (values of .50 or above are rounded to the next highest whole number). <sup>b</sup>Missing data=73. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>c</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.

C2. Percentage of CLEs that tracked the number of patient safety event reports submitted by residents and fellows<sup>a</sup>

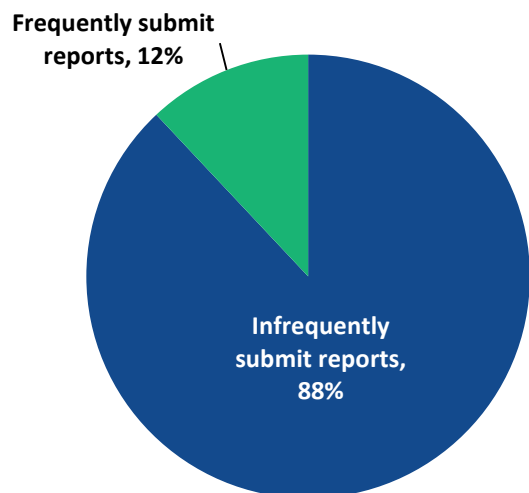


Percent by CLE Region, Bed Size, and Ownership (% Tracks Reporting)

| Region <sup>b</sup>           |    |
|-------------------------------|----|
| Northeast                     | 29 |
| Midwest                       | 28 |
| South                         | 29 |
| West                          | 47 |
| Bed Size                      |    |
| <200 beds                     | 53 |
| 200-299 beds                  | 31 |
| 300-399 beds                  | 26 |
| 400-499 beds                  | 41 |
| 500 or more beds              | 29 |
| Type of Ownership             |    |
| Nongovernment, not-for-profit | 29 |
| Investor-owned, for-profit    | 13 |
| Government, federal           | 20 |
| Government, nonfederal        | 51 |

Note. <sup>a</sup>Missing data=53. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.

### C3. Percentage of CLEs where residents and fellows frequently submitted patient safety event reports<sup>a</sup>



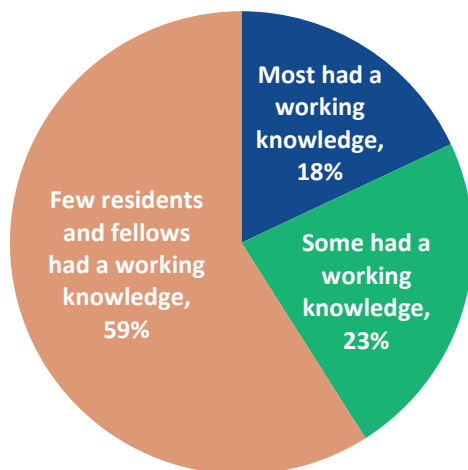
#### Percent by CLE Region, Bed Size, and Ownership (% Infrequently Submit Reports)

| Region <sup>b</sup>           |     |
|-------------------------------|-----|
| Northeast                     | 82  |
| Midwest                       | 92  |
| South                         | 92  |
| West                          | 84  |
| Bed Size                      |     |
| <200 beds                     | 100 |
| 200-299 beds                  | 63  |
| 300-399 beds                  | 86  |
| 400-499 beds                  | 91  |
| 500 or more beds              | 90  |
| Type of Ownership             |     |
| Nongovernment, not-for-profit | 88  |
| Investor-owned, for-profit    | 93  |
| Government, federal           | 56  |
| Government, nonfederal        | 90  |

Note. <sup>a</sup>Missing data=29. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.



#### C4. Percentage of CLEs by proportion of resident and fellow knowledge of basic quality improvement concepts<sup>a</sup>

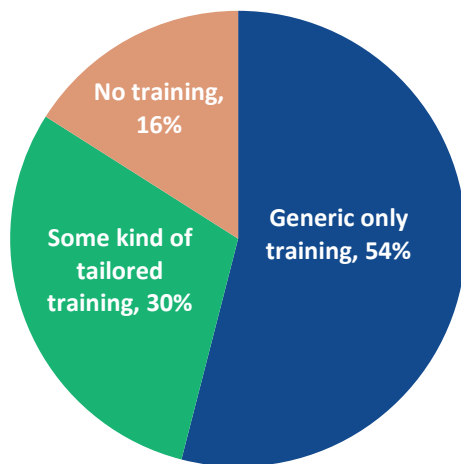


#### Percent by CLE Region, Bed Size, and Ownership (% Most)

| Region <sup>b</sup>           |    |
|-------------------------------|----|
| Northeast                     | 19 |
| Midwest                       | 22 |
| South                         | 18 |
| West                          | 6  |
| Bed Size                      |    |
| <200 beds                     | 15 |
| 200-299 beds                  | 33 |
| 300-399 beds                  | 8  |
| 400-499 beds                  | 15 |
| 500 or more beds              | 18 |
| Type of Ownership             |    |
| Nongovernment, not-for-profit | 20 |
| Investor-owned, for-profit    | 21 |
| Government, federal           | 0  |
| Government, nonfederal        | 11 |

Note. <sup>a</sup>Missing data=45. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.

## C5. Percentage of CLEs with cultural competency training for residents and fellows<sup>a</sup>

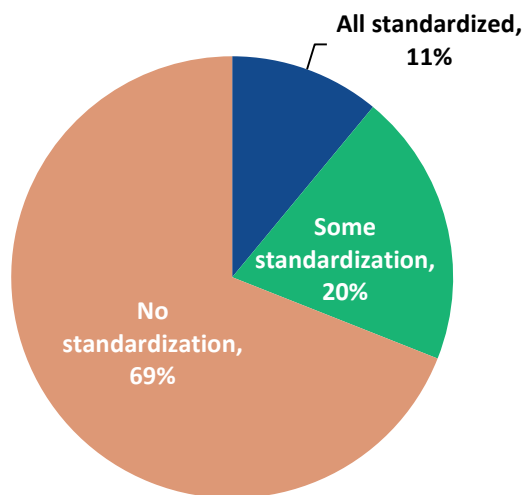


**Percent by CLE Region, Bed Size, and Ownership (% Tailored Training)**

| Region <sup>b</sup>           |    |
|-------------------------------|----|
| Northeast                     | 32 |
| Midwest                       | 27 |
| South                         | 18 |
| West                          | 62 |
| Bed Size                      |    |
| <200 beds                     | 25 |
| 200-299 beds                  | 35 |
| 300-399 beds                  | 26 |
| 400-499 beds                  | 30 |
| 500 or more beds              | 31 |
| Type of Ownership             |    |
| Nongovernment, not-for-profit | 29 |
| Investor-owned, for-profit    | 23 |
| Government, federal           | 36 |
| Government, nonfederal        | 36 |

Note. <sup>a</sup>Missing data=32. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.

**C6. Percentage of CLEs with hand-off processes that were standardized across programs, based on direct observations<sup>a</sup>**

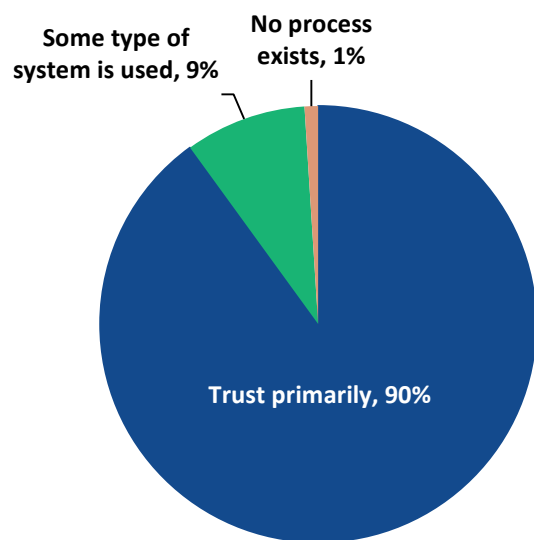


**Percent by CLE Region, Bed Size, and Ownership (% All Standardized)**

| Region <sup>b</sup>           |    |
|-------------------------------|----|
| Northeast                     | 14 |
| Midwest                       | 14 |
| South                         | 8  |
| West                          | 5  |
| Bed Size                      |    |
| <200 beds                     | 18 |
| 200-299 beds                  | 19 |
| 300-399 beds                  | 12 |
| 400-499 beds                  | 5  |
| 500 or more beds              | 10 |
| Type of Ownership             |    |
| Nongovernment, not-for-profit | 14 |
| Investor-owned, for-profit    | 13 |
| Government, federal           | 0  |
| Government, nonfederal        | 3  |

Note. <sup>a</sup>Missing data=18. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.

**C7. Percentage of CLEs by mechanism used for identification of resident and fellow competency to perform clinical procedures, as reported by nurses<sup>a</sup>**

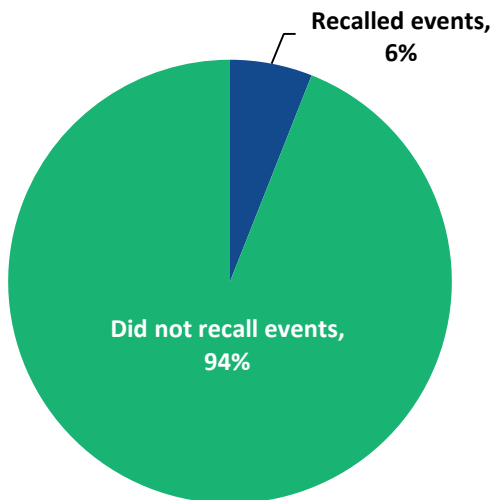


**Percent by CLE Region, Bed Size, and Ownership (% Trust Primarily)**

| Region <sup>b</sup>           |     |
|-------------------------------|-----|
| Northeast                     | 86  |
| Midwest                       | 92  |
| South                         | 93  |
| West                          | 90  |
| Bed Size                      |     |
| <200 beds                     | 91  |
| 200-299 beds                  | 88  |
| 300-399 beds                  | 93  |
| 400-499 beds                  | 95  |
| 500 or more beds              | 89  |
| Type of Ownership             |     |
| Nongovernment, not-for-profit | 91  |
| Investor-owned, for-profit    | 88  |
| Government, federal           | 100 |
| Government, nonfederal        | 87  |

Note. <sup>a</sup>Missing data=9. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.

C8. Percentage of CLEs where patient safety and quality leaders recalled patient safety events related to resident and fellow fatigue<sup>a</sup>

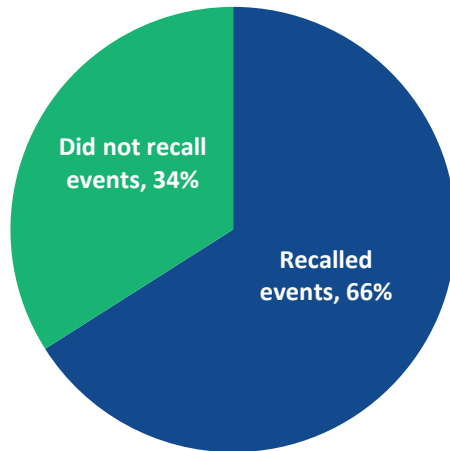


Percent by CLE Region, Bed Size, and Ownership (% Recalled Events)

| Region <sup>b</sup>           |    |
|-------------------------------|----|
| Northeast                     | 6  |
| Midwest                       | 9  |
| South                         | 3  |
| West                          | 9  |
| Bed Size                      |    |
| <200 beds                     | 0  |
| 200-299 beds                  | 8  |
| 300-399 beds                  | 7  |
| 400-499 beds                  | 10 |
| 500 or more beds              | 6  |
| Type of Ownership             |    |
| Nongovernment, not-for-profit | 8  |
| Investor-owned, for-profit    | 0  |
| Government, federal           | 9  |
| Government, nonfederal        | 2  |

Note. <sup>a</sup>Missing data=67. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.

## C9. Percentage of CLEs where executive leadership recalled incidents concerning professionalism<sup>a</sup>

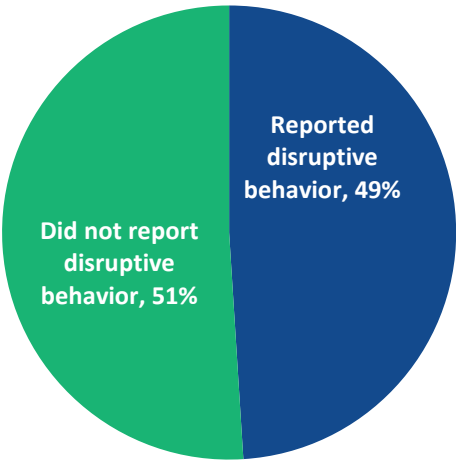


### Percent by CLE Region, Bed Size, and Ownership (% Recalled Events)

| Region <sup>b</sup>           |    |
|-------------------------------|----|
| Northeast                     | 67 |
| Midwest                       | 68 |
| South                         | 65 |
| West                          | 68 |
| Bed Size                      |    |
| <200 beds                     | 75 |
| 200-299 beds                  | 50 |
| 300-399 beds                  | 65 |
| 400-499 beds                  | 67 |
| 500 or more beds              | 69 |
| Type of Ownership             |    |
| Nongovernment, not-for-profit | 64 |
| Investor-owned, for-profit    | 60 |
| Government, federal           | 82 |
| Government, nonfederal        | 75 |

Note. <sup>a</sup>Missing data=23. It should be noted that missing data is largely due to the development and refinement of a formal template of the written site visit report in the early stages of program implementation. <sup>b</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.

**C10. Percentage of CLEs where disruptive or disrespectful behavior was reported across more than one clinical unit**



**Percent by CLE Region, Bed Size, and Ownership (% Reported Disruptive Behavior)**

| Region <sup>a</sup>           |    |
|-------------------------------|----|
| Northeast                     | 49 |
| Midwest                       | 43 |
| South                         | 48 |
| West                          | 65 |
| Bed Size                      |    |
| <200 beds                     | 50 |
| 200-299 beds                  | 33 |
| 300-399 beds                  | 36 |
| 400-499 beds                  | 45 |
| 500 or more beds              | 57 |
| Type of Ownership             |    |
| Nongovernment, not-for-profit | 48 |
| Investor-owned, for-profit    | 50 |
| Government, federal           | 55 |
| Government, nonfederal        | 52 |

Note. <sup>a</sup>Results from CLEs in Puerto Rico (n=3) have been omitted to protect their anonymity.