A primary objective of state medical boards (SMBs) is to protect the public by ensuring that physicians uphold appropriate standards of care and ethical practice. Yet, SMBs vary considerably in the regulation of physicians and the rate of severe disciplinary actions against physicians, such as revoking a medical license. This project focused on egregious wrongdoing, which is defined as the type of charge that, if found to be true, would merit suspension or revocation of a physician's medical license (e.g., sexual abuse of patients, unnecessary invasive procedures, or improper prescribing of controlled substances). About 0.1% of physicians each year are subject to disciplinary action that involves medical license suspension, surrender or revocation.1,3,6 This rate is similar to annual occurrences of new breast cancer diagnoses. However, this is an underestimation of actual occurrences of egregious wrongdoing in medicine. It is rare for egregious wrongdoing by physicians to be reported to SMBs.8,11 When SMBs do receive reports about egregious physician wrongdoing, they seldom take severe disciplinary action.2,3

There is also wide variability in the severity of disciplinary actions, which might include an increase in oversight, mandated education, restrictions on practice, publishing disciplinary letters while allowing the physician to continue practicing, license revocation and fines. In particular, there is a 7.89-fold variation across SMBs in rates of severe disciplinary actions taken against physicians. For example, in cases when a physician is found guilty of sexual abuse, many boards would revoke the physician’s license, whereas other boards would not remove the physician from practice and, instead, enforce less severe punishments (e.g., boundary or ethics classes, mandated chaperones, limit clinical privileges) or permit the physician to resign, enabling them to obtain a license in another state.

Little data exist on the barriers to taking timely action against a physician’s license when this is warranted. However, a few reports suggest that variability across SMBs may be due to concerns about over-scrutinization of physicians by SMBs, limitations imposed by state legislation, scarcity of resources available to SMBs, reluctance to strip licenses of physicians working in underserved areas, lack of disciplinary guidelines and ambiguity as to what constitutes an egregious violation that warrants severe disciplinary action. State laws afford different requirements for board composition and levels of authority and autonomy to SMBs, including how boards investigate and discipline physicians. Practical and actionable solutions are needed by SMBs to more effectively protect patients from harmful physicians.

ABSTRACT

Purpose: There is wide variability in the frequency and severity of disciplinary actions imposed by state medical boards (SMBs) against physicians who engage in egregious wrongdoing. We sought to identify cutting-edge and particularly effective practices, resources, and statutory provisions that SMBs can adopt to better protect patients from harmful physicians.

Main findings: Using a modified Delphi panel, expert consensus was reached for 51 recommendations that were rated as highly important for SMBs. Panelists included physicians, executive members, legal counsel, and public members from approximately 50% of the 71 SMBs that serve the United States and its territories.

Conclusion: The expert-informed list of recommendations can help support more effective and transparent actions and processes by SMBs when addressing suspected egregious wrongdoing. While some SMBs may be limited in what policies and provisions they can adopt without approval or assistance from state government, many of these recommendations can be autonomously adopted by SMBs without external support.
Variability in SMB practices is problematic for myriad reasons. In certain cases, egregious wrongdoing by physicians persists because SMBs did not take swift action against offending physicians, failed to remove offending physicians from practice, or did not publicly report disciplinary actions taken, enabling offending physicians to relocate to different states and continue practicing medicine.\cite{21,22} Studies examining cases of egregious wrongdoing by physicians have found that physicians who engaged in egregious wrongdoing frequently were allowed to continue practicing medicine and continued committing egregious offenses even after being referred to SMBs.\cite{11,21,23} This behavior causes serious harm to patients and undermines public trust in the health care system and health care providers.\cite{24,25} As a result, patients may be reluctant to seek care from physicians or adhere to care plans prescribed by physicians.\cite{26}

Past reviews of SMB performance have identified several features of SMBs that are associated with higher rates of severe disciplinary actions taken by boards, including independence from regional government and state medical societies and adequate SMB budget and staffing.\cite{3} However, these past studies do not control for key variables that might affect rates of severe disciplinary actions, including rates of egregious wrongdoing and rates of reporting.

It is unclear what measures would make SMBs more effective at promptly removing from practice physicians who commit egregious wrongdoing. In light of this uncertainty and the variation in discipline across SMBs, we sought to identify cutting-edge and particularly effective practices, resources and statutory provisions that SMBs can use to more uniformly: 1) encourage and enable reporting of physicians who engage in egregious wrongdoing, 2) investigate physicians who have been accused of egregious wrongdoing, 3) discipline physicians determined to have engaged in egregious wrongdoing, and 4) deter physicians from engaging in egregious wrongdoing, protect and empower patients and increase transparency. This list of recommendations can be used to update Federation of State Medical Boards (FSMB) guidelines and by SMBs as a guide for updating and adopting practices to better protect patients. Prior research involving case studies of six SMBs has identified how boards operate and strategies for improving board disciplinary practices.\cite{27} The present project is the first to foster a consensus on a wider range of board practices, resources, and provisions, directly involving SMB members and staff from more than 50% of SMBs in the United States and its territories.

**Methods**

Researchers at Washington University School of Medicine (WU) and Saint Louis University School of Law conducted a modified Delphi consensus panel using Zoom meetings and online surveys administered via Qualtrics, an online survey software system. Delphi panels are intended to establish expert consensus on a topic, such as prioritizing policies, and enabling the sharing of anonymous perspectives from individuals without undue influence from other panelists.\cite{28,29} During a Delphi panel, multiple rounds of questionnaires are administered to panelists with the purpose of identifying recommendations that are agreed upon by the majority of panelists.\cite{30}

The WU Human Research Protection Office determined that the project did not constitute human subjects research because its purpose was to foster a consensus among experts, not to produce generalizable knowledge. Panelists volunteered to participate and were paid up to $1,200 as an honorarium for their participation, depending on the number of Delphi panel rounds they completed. Several declined payment.

**Panelists**

Panelists were recruited between November 2019 and February 2020. We solicited panelist recommendations from our project advisory board, which included the Past Chair of the FSMB, leading health lawyers, leaders of physician remediation training programs, leaders in health care ethics, a patient advocate and member of the Patient Safety Action Network, and members of SMBs. We asked our advisory board to recommend SMB members who had at least two years of experience serving on a SMB, had a robust knowledge base about SMB practices, exhibited good critical thinking and communication skills, would be strongly committed to the project and were willing to consider the perspectives of other panelists. It was important that relevant stakeholders and end-users were engaged throughout this process to maximize buy-in and increase the likelihood of recommendation uptake by SMBs and their members.\cite{31}

We received more than 70 nominations of possible panelists. A total of 40 individuals from approximately 50% of the 71 SMBs that serve the United States and its territories were selected to participate in the panel. One of the 40 panelists opted out of participating, leaving a total of 39 panelists. Of the 39 panelists, 14 were executive members, four were legal counsel to SMBs, 14 were physician
members and seven were public members. The names and short bio-sketches of panelists are included in Appendix A.

**Procedures**

Prior to administering the first-round survey, we held an orientation webinar via videoconference with all panelists to share background information, data and stories to illustrate the significance of the project and cultivate informed engagement. We shared the prompts that would be presented in all four Delphi rounds to ensure that panelists understood what was being asked of them and so that panelists could begin critically thinking about their responses to the prompts. Allowing panelists to plan their responses in advance enabled them to consult with their SMBs as needed to provide accurate and robust responses to the Delphi surveys. Figure 1 depicts an overview of the four Delphi rounds.

**Round 1:** Panelist responses were solicited in Round 1 using an open-ended prompt. The prompt asked panelists to describe any cutting-edge or rounds to ensure that panelists understood what was being asked of them and so that panelists could begin critically thinking about their responses to the prompts. Allowing panelists to plan their responses in advance enabled them to consult with their SMBs as needed to provide accurate and robust responses to the Delphi surveys. Figure 1 depicts an overview of the four Delphi rounds.

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**Figure 1**

Flow of Delphi Panel Rounds

| Round 1 | Round 2 | Round 3 | Round 4 |
|---------|---------|---------|---------|
| **Panelists** | **Panelists** | **Panelists** | **Panelists** |
| describe practices or resources their board currently has or lacks but that are urgently needed | present 63 recommendations | indicate whether their board has adopted each recommendation | present with percentages and example rationales of low, medium, or high importance |
| **Research team** | **Panelists** | **Panelists** | **Panelists** |
| consolidates 499 recommendations into 63 unique recommendations to move to Round 2 | present 14 recommendations | rate the importance of each recommendation | consider ratings and rationales of other panelists and provide a final rating of importance for each of the 8 recommendations |
| **Panelists** | **Research team** | **Panelists** | **Research team** |
| present 49 of 63 recommendations reached consensus on importance; remaining 14 recommendations move to Round 3 | identifies 20 high-importance, low-adoption recommendations to move to Round 3 | consider ratings of other panelists, re-rate the importance of each recommendation, and provide rationale for the 14 no-consensus recommendations | identifies that 1 of 14 recommendations reached consensus; discards 5 of 14 recommendations; remaining 8 recommendations move to Round 4 |
| **Panelists** | **Panelists** | **Panelists** | **Panelists** |
| rate the importance of each recommendation | consider ratings of other panelists, re-rate the importance of each recommendation, and provide rationale for the 14 no-consensus recommendations | describe barriers to implementing the 20 low-adoption recommendations | provide final rating of importance for each of the 8 recommendations |
particularly effective practices, resources or provisions that: 1) their SMB currently has, or 2) their SMB currently lacks but urgently needs to protect the public from egregious wrongdoing by physicians. We received 499 recommendations from panelists.

STUDIES EXAMINING CASES OF EGREGIOUS WRONGDOING BY PHYSICIANS HAVE FOUND THAT PHYSICIANS WHO ENGAGED IN EGREGIOUS WRONGDOING FREQUENTLY WERE ALLOWED TO CONTINUE PRACTICING MEDICINE AND CONTINUED COMMITTING EGREGIOUS OFFENSES...

Two members of the project team read through the recommendations and sorted the recommendations into 11 clusters representing different SMB features and processes: 1) board composition and characteristics, 2) board funding, 3) board duty, power, and responsibility, 4) prevention strategies and education, 5) standards and definitions, 6) partnering with allies and other stakeholders, 7) tools and technology, 8) reporting to the board, 9) investigation, 10) suspensions, and 11) rehabilitation and disciplinary approaches. Redundant or similar recommendations within each cluster were consolidated and reworded slightly for readability, anonymity and generalizability of language. Round 1 yielded a total of 63 unique recommendations that proceeded to Round 2 after multiple rounds of review and edits by all authors.

Round 2: Panelists were presented with the 63 recommendations from Round 1. They were asked to indicate whether their SMB currently has the practice, resource or provision. Panelists were also asked to rate, on a scale of one (not at all important) to nine (extremely important), how important each individual practice, resource or provision is or would be to SMB efforts to protect patients from egregious wrongdoing by physicians. Low importance recommendations were rated as a 1, 2 or 3. Moderate importance recommendations were rated as a 4, 5 or 6. High importance recommendations were rated as a 7, 8 or 9.

Following the convention set by the Rand Corporation, recommendations were considered to have reached consensus if ≥75% of panelists rated the recommendation as a 7, 8 or 9 on the 9-point scale. A total of 49 recommendations reached consensus during this second round. The remaining 14 recommendations that did not reach consensus moved to Round 3. Additionally, 20 recommendations that were rated by panelists as important but had low board-adooption (<60% of panelists reporting adoption), as reported by panelists, moved to Round 3. These high-importance, low-adoption recommendations were expected to be recommendations with the greatest opportunity for policy and practice changes in SMBs.

Round 3: For the 14 recommendations from Round 2 that did not reach consensus, panelists were presented with the percentage of panelists who rated each recommendation as being of low, moderate or high importance. After reviewing these percentages, panelists were asked to rate the recommendations’ importance a second time and were then asked to provide an open-ended rationale for each of their ratings. Panelists were then presented with the 20 high-importance, low-adoption recommendations from Round 2. They were asked to indicate again whether their SMB currently has each policy, practice or provision and were asked to provide an open-ended description of the barriers their board needed to overcome or would need to overcome to implement the policy, practice or provision. Given the large scope of this project and its extensive results, we report on our barrier findings in a separate paper.

Of the 14 no-consensus recommendations presented in Round 3, one recommendation reached consensus as being of high importance. Four recommendations failed to achieve even weak consensus (>50%) and therefore did not advance to Round 4. The research team discarded one other recommendation because it was determined to be beyond the scope of the project. This recommendation read, “Board reports impaired physicians to the National Practitioners Data Bank (NPDB).”

Round 4: Only the eight recommendations from Round 3 that already had a weak consensus (>50% but less than 75% agreement) advanced to Round 4. Panelists were presented with the percentage of panelists who rated each recommendation as being of low, medium or high importance, along with example rationales for low, medium and high ratings provided
Table 1
Sample Recommendation with Rationales Presented During Round 4 Prior to Final Ratings

| Recommendation: Board utilizes a regional or national expert pool. By “regional,” we mean a cluster of states in a given geographic location (e.g., New England, Upper Midwest). |
|---------------------------------|
| Low Importance Rationales (24%) |
| • A regional or national expert pool does not guarantee that the Board receives quality advice on a given discipline case. To prove a community standard of care necessitates an expert who is familiar with that community. An expert from a regional or national pool may not be able to do this. Picking a qualified expert, whether local, regional, or national, is key to good outcomes in discipline cases to protect patients. |
| • Professional experts can have their opinion bought and may not be objective. |
| Medium Importance Rationales (6%) |
| • In some cases, it may be beneficial. In many cases, bringing in someone from a distance could imply there was no one local who would support the case, and therefore a “hired gun” had to be obtained. |
| • National experts can be over-utilized. Local experts can have the same expertise and be more familiar with regional standards. Some specialties may not be available locally. |
| High Importance Rationales (70%) |
| • This is important for assessing complaints if your board is located in a state with a smaller physician population. Smaller states can have issues identifying experts who do not know the defendant, at least by reputation, and who can provide objective evaluations and input. For those states, a regional or national expert would be of use, especially for cases that involve an academic physician and when there is only one academic institution in the state. |
| • It may be difficult to retain qualified experts to testify in disciplinary matters. Having a pool of experts would provide assistance in securing experts. |
| • Establishing a national expert pool is important for establishing a consistent standard of care. The unique skill of the expert is critical. This allows for a larger pool of experts, especially for smaller jurisdictions. This also helps mitigate personal or objective conflicts of interest. |
| • Having an expert pool saves the board time and resources. An expert pool gives the case a fair overview by someone who is in the best position to advise the investigator, attorneys, and the board on standards of care. Having an established relationship with a reviewer can save the board’s legal counsel time when litigating a case. Many times during a quality-of-care case, time is of the essence. |
| • Regional expert pools will be more credible, as these individuals may understand the regional views and local community practices. |

by panelists in Round 3. Table 1 presents a sample recommendation with the rationales presented to panelists. Participants were asked to read the rationales provided by their peers, reconsider their position, and provide a final rating of importance.

One recommendation from Round 4 reached strong consensus (>75% agreement), four reached a moderate consensus (between 60% and 75%) and three recommendations failed to reach consensus.

Results

A total of 56 cutting-edge or particularly effective recommendations reached moderate or strong consensus. Consensus recommendations were sorted into five clusters of topics by the research team, as shown in Tables 2 through 7. The research team met to classify the recommendations and collectively agreed upon the classifications in consultation with the project advisory board. Table 2 presents a rank-ordered list of nine recommendations about board composition and characteristics.

Example recommendations include, “Board is required to be racially diverse,” and, “Sexual misconduct cases are investigated by specialized gender-diverse teams.”

Table 3 presents a rank-ordered list of seven recommendations about board website, outreach, and education. Example recommendations include, “Board website includes information about state laws and board policy on sexual misconduct,” and “Board markets its purpose via social media, professional organizations, and liaising with hospitals and other relevant groups.”
### Table 2
**Cluster 1 Recommendations: Board Composition and Characteristics**

| Recommendation                                                                 | % of Panelists Rating 7–9 | Round of Consensus | % Self-Reported Adoption |
|--------------------------------------------------------------------------------|----------------------------|--------------------|--------------------------|
| 1. Board has an adequate number of investigative staff.                      | 100%                       | 2                  | 77%                      |
| 2. Board is required to include gender diversity.                            | 97%                        | 2                  | 57%                      |
| 3. Board has an adequate number of administrative staff.                     | 94%                        | 2                  | 74%                      |
| 4. Board is required to be racially diverse.                                 | 94%                        | 2                  | 46%                      |
| 5. Board has an adequate number of members with clinical expertise that is reasonably current. | 94%                        | 2                  | 94%                      |
| 6. Board has access to adequate legal counsel.                               | 97%                        | 2                  | 94%                      |
| 7. Sexual misconduct cases are investigated by specialized gender-diverse teams. | 89%                        | 2                  | 46%                      |
| 8. Board utilizes a role-diverse investigative team (e.g., including clinicians, public members, and legal counsel). | 86%                        | 2                  | 77%                      |
| 9. Board includes more than one public member with no ties to medicine or industry. | 83%                        | 2                  | 97%                      |

Note: Panelists rated the importance of each recommendation on a scale of 1 (not at all important) to 9 (extremely important); if more than 75% of panelists provided ratings of 7, 8, or 9, the recommendation was considered to be of high importance, indicating collective agreement about the importance of the recommendation. The high-importance, low-adoption recommendations above are in bold text. 37 panelists completed Round 1, 35 panelists completed Round 2, 33 panelists completed Round 3, and 34 panelists completed Round 4.

### Table 3
**Cluster 2 Recommendations: Board Website, Outreach, and Education**

| Recommendation                                                                 | % of Panelists Rating 7–9 | Round of Consensus | % Self-Reported Adoption |
|--------------------------------------------------------------------------------|----------------------------|--------------------|--------------------------|
| 1. The board website provides an easy-to-find platform for patients and other whistleblowers to file complaints. | 97%                        | 2                  | 89%                      |
| 2. Board publishes documents on hearings and disciplinary actions on its website. | 91%                        | 2                  | 83%                      |
| 3. Board website includes information about state laws and board policy on sexual misconduct. | 89%                        | 2                  | 69%                      |
| 4. The board website includes information about the investigation process and what the person reporting can expect. | 86%                        | 2                  | 83%                      |
| 5. Board markets its purpose via social media, professional organizations, and liaising with hospitals and other relevant groups. | 86%                        | 2                  | 74%                      |
| 6. Board website defines physician sexual misconduct.                          | 80%                        | 2                  | 51%                      |
| 7. Board provides physicians with specific information on what disciplinary actions occur if they violate provisions of the medical practice act. | 80%                        | 2                  | 86%                      |

Note: Panelists rated the importance of each recommendation on a scale of 1 (not at all important) to 9 (extremely important); if more than 75% of panelists provided ratings of 7, 8, or 9, the recommendation was considered to be of high importance, indicating collective agreement about the importance of the recommendation. The high-importance, low-adoption recommendations above are in bold text. 37 panelists completed Round 1, 35 panelists completed Round 2, 33 panelists completed Round 3, and 34 panelists completed Round 4.
Table 6 presents a rank-ordered list of 14 recommendations about licensing and disciplinary considerations. Example recommendations include, “Certain criminal acts by physicians (e.g., sexual misconduct) are raised to the felony level, subjecting them to mandatory reporting,” and “Board imposes penalties on physicians for not reporting peers who engage in egregious wrongdoing.”

Table 4 presents a rank-ordered list of 11 recommendations about internal board operations and investigations. Example recommendations include, “Board requires all physicians to complete a criminal background check at the time of their application,” and “Board has a screening committee that triages incoming complaints.”

Table 5 presents a rank-ordered list of 15 recommendations about improved coordination and information-sharing between stakeholders. Example recommendations include, “Board requires medical schools and post-graduate training programs to report egregious wrongdoing as a condition to licensure eligibility,” and “Board informs law enforcement that they can report accusations against a physician to the board even if criminal charges are not filed.”

Table 3 Recommendations: Internal Board Operations and Investigations

| Recommendation                                                                 | % of Panelists Rating 7–9 | Round of Consensus | % Self-Reported Adoption |
|--------------------------------------------------------------------------------|----------------------------|--------------------|--------------------------|
| 1. Board has the authority to open an investigation in the absence of a        | 100%                       | 2                  | 100%                     |
| complaint based on factors such as criminal history reports, prosecutorial    |                            |                    |                          |
| charging instruments, FSMB, NPDB, and PMP reports, other agency and            |                            |                    |                          |
| jurisdictional enforcement actions, or journalistic reporting.                 |                            |                    |                          |
| 2. Board established qualifications for experts consulted during investigations| 97%                        | 2                  | 86%                      |
| and hearings.                                                                  |                            |                    |                          |
| 3. Board obtains relevant mental health information during investigations.    | 89%                        | 2                  | 94%                      |
| 4. Board allows patients to present complaints in strict confidentiality.      | 83%                        | 2                  | 83%                      |
| 5. Board requires all physicians to complete a criminal background check at    | 82%                        | 2                  | 68%                      |
| the time of their application.                                                |                            |                    |                          |
| 6. The board permits anonymous reporting.                                      | 80%                        | 2                  | 91%                      |
| 7. The board defines which types of alleged misconduct trigger special        | 79%                        | 2                  | 76%                      |
| procedures to protect the public (e.g., consideration of emergency suspension  |                            |                    |                          |
| of a license, expedited investigation).                                       |                            |                    |                          |
| 8. Board has a screening committee that triages incoming complaints.          | 79%                        | 2                  | 59%                      |
| 9. Board routinely checks the Prescription Monitoring Program (PMP) for the    | 76%                        | 2                  | 56%                      |
| top prescribers of opioids and checks for suspicious patterns of              |                            |                    |                          |
| prescribing or dispensing opioids.                                            |                            |                    |                          |
| 10. When the NPDB has a plausible category to characterize wrongdoing (e.g.,  | 74%                        | 4                  | 31%                      |
| sexual misconduct), then the Board would ban the use of the “other” or “N/A”  |                            |                    |                          |
| categories. “Other” or “N/A” categories would be used as a last resort.*      |                            |                    |                          |
| reworded from prior rounds*                                                    |                            |                    |                          |
| 11. Board requires all physicians to complete a criminal background check     | 62%                        | 4                  | 24%                      |
| at the time of their renewal.                                                 |                            |                    |                          |

Note: Panelists rated the importance of each recommendation on a scale of 1 (not at all important) to 9 (extremely important); if more than 75% of panelists provided ratings of 7, 8, or 9, the recommendation was considered to be of high importance, indicating collective agreement about the importance of the recommendation. The high-importance, low-adoption recommendations are in bold. 37 panelists completed Round 1, 35 panelists completed Round 2, 33 panelists completed Round 3, and 34 panelists completed Round 4.
Table 5
Cluster 4 Recommendations: Improved Coordination and Information Sharing Between Stakeholders

| Recommendation                                                                 | % of Panelists Rating 7–9 | Round of Consensus | % Self-Reported Adoption |
|-------------------------------------------------------------------------------|---------------------------|--------------------|--------------------------|
| 1. Board issues subpoenas for witnesses and medical and business records.     | 97%                       | 2                  | 91%                      |
| 2. Board provides disciplinary information to the FSMB Physician Data Center, which allows for disciplinary alerts to be sent to other jurisdictions in which the physician holds a license. | 97%                       | 2                  | 94%                      |
| 3. Hospitals are required to report to boards when employed physicians have been dismissed or resign due to concerns about egregious wrongdoing. | 94%                       | 2                  | 77%                      |
| 4. Board requires medical schools and post-graduate training programs to report egregious wrongdoing as a condition to licensure eligibility. | 88%                       | 2                  | 62%                      |
| 5. Board requires all physicians to report any disciplinary action during medical school at the time of their application (e.g., suspension, warning, probation, expulsion, being requested or allowed to resign in lieu of discipline). | 85%                       | 2                  | 85%                      |
| 6. State law indemnifies those who, in good faith, provide mandated reports or assist the board with investigations. (To indemnify means to protect the individuals from legal actions brought against them for performing their duties.) | 82%                       | 2                  | 88%                      |
| 7. Information sharing is required between the board and the VA system, including information about physicians. | 80%                       | 2                  | 31%                      |
| 8. Board informs law enforcement that they can report accusations against a physician to the board even if criminal charges are not filed. | 80%                       | 2                  | 71%                      |
| 9. Board requires medical schools and post-graduate training programs to report any disciplinary complaints about physicians during medical school as a condition for licensure eligibility. | 79%                       | 2                  | 56%                      |
| 10. Board allows unfettered investigative information sharing about physicians with other boards, including when a physician applies for licensure and when potentially actionable out-of-state conduct occurs. | 77%                       | 2                  | 57%                      |
| 11. Insurance companies are required to report to the board each time a payment is made in a malpractice case. | 77%                       | 2                  | 66%                      |
| 12. Board has a duty to report to law enforcement any time it becomes aware of sexual misconduct or other instances of egregious wrongdoing. | 77%                       | 2                  | 57%                      |
| 13. Board coordinates investigations with community partners (e.g., local and state police, health care organizations, other state agencies). | 77%                       | 2                  | 66%                      |
| 14. Board reports impaired physicians to the National Practitioners Data Bank (NPDB). | 67%                       | 3                  | 69%                      |
| 15. Board conducts joint investigations with other professional boards (e.g., nursing, physician assistants, dentistry) within the state. | 62%                       | 4                  | 54%                      |

Note: Panelists rated the importance of each recommendation on a scale of 1 (not at all important) to 9 (extremely important); if more than 75% of panelists provided ratings of 7, 8, or 9, the recommendation was considered to be of high importance, indicating collective agreement about the importance of the recommendation. The high-importance, low-adoption recommendations are in bold. 37 panelists completed Round 1, 35 panelists completed Round 2, 33 panelists completed Round 3, and 34 panelists completed Round 4.
Discussion

The Delphi panel achieved a consensus on 56 recommendations for SMBs as they address the problem of egregious wrongdoing by physicians. Some of these recommendations will require, or would benefit from, legislative action. SMBs could adopt others without legislative action. Each SMB has its own constraints, including budgets, staffing, limitations imposed by state laws and norms and unique barriers that need to be overcome to implement some of these recommendations.

Table 7 presents a rank-ordered list of the seven recommendations with weak consensus.

The recommendations in these tables of recommendations point to a mix of practices, resources and legal provisions. All tables with recommendations indicate what percentage of panelists rated that recommendation as being of high importance, indicating collective agreement about the importance of the recommendation. The high-importance, low-adoption recommendations are in bold. 37 panelists completed Round 1, 35 panelists completed Round 2, 33 panelists completed Round 3, and 34 panelists completed Round 4.

Table 6
Cluster 5 Recommendations: Licensing and Disciplinary Considerations

| Recommendation                                                                 | % of Panelists Rating 7–9 | Round of Consensus | % Self-Reported Adoption |
|--------------------------------------------------------------------------------|---------------------------|-------------------|--------------------------|
| 1. Board has the authority to make decisions and take action independently in disciplinary matters. | 100%                      | 2                 | 97%                      |
| 2. Board allows an emergency suspension or restriction of a physician when physicians are credibly accused of sexual misconduct with a minor. | 100%                      | 2                 | 100%                     |
| 3. The board is authorized to enact an emergency suspension to prevent ongoing, egregious wrongdoing when allegations are credible, or a physician has been arrested in connection with such conduct. | 100%                      | 2                 | 97%                      |
| 4. The board monitors physicians and their continued practice following a finding of sexual wrongdoing if a license is not revoked or suspended. | 97%                       | 2                 | 100%                     |
| 5. The board has the authority to permanently revoke the license of a physician who is convicted of sexual misconduct. | 97%                       | 2                 | 85%                      |
| 6. When a physician agrees to a disciplinary recommendation, an order is presented to the full board for approval. | 89%                       | 2                 | 91%                      |
| 7. When a physician declines to accept a disciplinary recommendation, formal charges are filed, and a contested case is publicly held. | 89%                       | 2                 | 94%                      |
| 8. The board considers revocation when a physician repeatedly commits lesser acts of wrongdoing, especially following remedial efforts. | 88%                       | 2                 | 97%                      |
| 9. Certain criminal acts by physicians (e.g., sexual misconduct) are raised to the felony level, subjecting them to mandatory reporting. | 83%                       | 2                 | 74%                      |
| 10. Board suspends a physicians’ license when the license is suspended in another jurisdiction. | 82%                       | 4                 | 76%                      |
| 11. Board allows an emergency suspension or restriction of a physician when physicians are in possession of a controlled substance without a valid prescription. | 80%                       | 2                 | 86%                      |
| 12. Board imposes penalties on physicians for not reporting peers who engage in egregious wrongdoing. | 77%                       | 2                 | 49%                      |
| 13. Board utilizes preponderance of the evidence as the standard of proof in all disciplinary proceedings (rather than “clear and convincing evidence” or other standards). | 76%                       | 3                 | 71%                      |
| 14. Board fines hospitals and academic medical centers for failure to report instances of egregious wrongdoing. | 68%                       | 4                 | 20%                      |

Note: Panelists rated the importance of each recommendation on a scale of 1 (not at all important) to 9 (extremely important); if more than 75% of panelists provided ratings of 7, 8, or 9, the recommendation was considered to be of high importance, indicating collective agreement about the importance of the recommendation. The high-importance, low-adoption recommendations are in bold. 37 panelists completed Round 1, 35 panelists completed Round 2, 33 panelists completed Round 3, and 34 panelists completed Round 4.
not evaluate candidates, as board members are appointed by the governor or state agencies, such as the Department of Health. However, the board can often make recommendations to decision makers. States that have made little progress in this area should assess the composition of their boards, examine the demographics of the populations they serve, and strategize to create racial, gender and role concordance in their board. Boards that have already diversified the composition of their boards in some ways should consider expanding their efforts by increasing diversity in other areas.

### Board Composition and Characteristics

Policies that address the composition of boards, including gender diversity, racial diversity, and role diversity (e.g., the number of public versus physician and legal board members) promote fairness, impartiality and a well-functioning board. Some data indicate that diverse corporate boards perform better and make higher-quality decisions than boards that lack diversity.33 Having board members of different races, genders and backgrounds may protect against biases and prejudices; it may also help diverse patients and advocates to feel more comfortable reporting to boards.

Gender diversity may be of particular concern when investigating cases of alleged sexual misconduct, as women and children are disproportionately assaulted by physicians.25 The racial and ethnic composition of the population of some states lends itself to diversity, yet it may be difficult in states where the population is less diverse to recruit people of color to serve on SMBs. The composition of the board in terms of license types represented (e.g., MD or DO), geographic distribution and public members is established by law in some states. Frequently the SMB does not evaluate candidates, as board members are appointed by the governor or state agencies, such as the Department of Health. However, the board can often make recommendations to decision makers. States that have made little progress in this area should assess the composition of their boards, examine the demographics of the populations they serve, and strategize to create racial, gender and role concordance in their board. Boards that have already diversified the composition of their boards in some ways should consider expanding their efforts by increasing diversity in other areas.

### Board Website, Outreach and Education

Nearly seven in 10 Americans do not know that SMBs are the best resource to contact regarding a complaint against a physician’s competence or conduct.34 Policies that address the lack of awareness that communities have about the SMBs’ purpose through increased education and outreach may help curb egregious wrongdoing through multiple mechanisms. SMBs can use social media and their websites to share messages about their function; they can engage with the public, law enforcement, physicians and physicians’ employers; and they can advocate reporting of egregious wrongdoing. SMBs could find success in leveraging online platforms to engage stakeholder groups that may otherwise be difficult to reach. By increasing the public’s awareness of the SMBs’ function, patients will have a better understanding of what constitutes egregious wrongdoing and how to report it. Employers and patients should be able to easily find information about physicians and learn if they have been disciplined for prior egregious wrongdoing.

### Table 7

| Recommendation                                                                 | % of Panelists Rating 7–9 | Round of Consensus | % Self-Reported Adoption |
|--------------------------------------------------------------------------------|---------------------------|--------------------|--------------------------|
| 1. Board utilizes a regional or national expert pool.                          | 59%                       | 4                  | 54%                      |
| 2. Board requires physicians who have been sanctioned for sexual misconduct to document disclosure to all patients. | 56%                       | 4                  | 40%                      |
| 3. Board avoids conflicts of interest by assigning individual complaints to administrative staff to the appropriate sub-committee for review. | 56%                       | 4                  | 65%                      |
| 4. Board provides training on trauma for board members on specialized investigative teams. | 45%                       | 3                  | 26%                      |
| 5. Board establishes peer monitoring of physicians working in solo practices.  | 33%                       | 3                  | 29%                      |
| 6. Board has a panel of practice monitors who rotate periodically when monitoring physicians. | 24%                       | 3                  | 29%                      |
| 7. Board publishes the names of physicians being investigated for egregious wrongdoing. | 24%                       | 3                  | 20%                      |

Each SMB has its own constraints, including budgets, staffing, limitations imposed by state laws and norms and unique barriers that need to be overcome to implement some of these recommendations.

SMBs. The composition of the board in terms of license types represented (e.g., MD or DO), geographic distribution and public members is established by law in some states. Frequently the SMB does not evaluate candidates, as board members are appointed by the governor or state agencies, such as the Department of Health. However, the board can often make recommendations to decision makers. States that have made little progress in this area should assess the composition of their boards, examine the demographics of the populations they serve, and strategize to create racial, gender and role concordance in their board. Boards that have already diversified the composition of their boards in some ways should consider expanding their efforts by increasing diversity in other areas.
Some patients may not understand standards of care (e.g., when a pelvic exam is indicated or that pelvic exams should be performed while gloved). Boards should provide patients with access to educational materials that address these matters. Examples of such resources can be found at https://brcinitiatives.org/resources/.

**Internal Board Operations and Investigation**

It is important for boards to have the ability to freely gather all relevant information needed for investigations. This includes the ability to open investigations if there is a credible reason to do so, make reporting less burdensome on victims (e.g., allow anonymous or confidential reporting), and access the resources and personnel needed to investigate complaints and act quickly to stop egregious wrongdoing. Many barriers stand in the way to implementing policies that would allow boards this autonomy, including a lack of funding and staff. A lack of trained personnel and investigative staff hinders boards’ ability to perform quick and thorough investigations. Most state legislatures set SMB budgets, and state leadership appoints board members. SMBs should work closely with decision makers to advocate for policies that would allow them to suspend licenses and recommend disciplinary actions that protect the public. Boards do not perform criminal investigations, but should work closely with law enforcement when physicians are convicted of certain criminal acts that would warrant possible revocation of a license (e.g., some sexual misconduct). When physicians repeatedly commit lesser acts of wrongdoing, boards should be able to impose stricter penalties following remedial efforts.

Taken together, these recommendations are likely to be of value to SMBs seeking to improve SMB policies and practices that better serve the needs of patients and the public. If adopted by boards and implemented consistently, these recommendations can, either directly or indirectly, help cultivate more uniform and timely disciplinary action.

**Limitations**

This project has a few limitations. First, only half of SMBs in the United States were represented in the Delphi panel. There may be some in the community of SMBs who disagree with the recommendations and the importance attributed to these recommendations by panelists. It cannot be assumed that consensus among our panelists would be identical.
to the consensus among a different subset of SMB members. Moreover, the majority of SMBs represented in our Delphi panel only had one representative who participated. There may be disagreement among members within SMBs about the recommendations and their importance. It may be the case that some SMB members have a different understanding of existing board policies and procedures than other members of that same board. While most panelists had at least two years of experience serving on SMBs, differences in respondent-awareness of policies and procedures are expected. Panelists may have reported policy adoption or a lack of policy incorrectly. Similarly, there may be other viable and effective recommendations not provided in the list of recommendations because they were not generated by panelists. Finally, a consensus that a policy or resource should be adopted does not mean that it will be effective in achieving its aim. Implementing many of these recommendations will require substantial financial support. Most of the recommendations have intuitive appeal and some are supported by panelists’ experience; however, this project does not provide anything like experimental evidence in support of the recommendations.

**Next Steps**

Our research team plans to create an inventory or checklist of the Delphi panel recommendations with brief explanations that SMBs can use to assess their practices and identify areas for improvement. We also plan to develop select model statutory provisions, with explanation and commentary, which SMBs and others could use to advocate for legislative action. Beyond these products, we plan to publish manuscripts discussing panelists’ reported barriers to adopting certain recommendations, partner with FSMB leaders to update the “Guidelines for the Structure and Function of a State Medical and Osteopathic Board,” and disseminate the recommendations from this project to SMBs and other policymakers.

**Conclusions**

Given the variability in the frequency and severity of disciplinary actions imposed by SMBs on physicians who engage in egregious wrongdoing, we sought to identify cutting-edge and particularly effective practices, resources and legal provisions that SMBs can implement to better protect patients from harmful physicians. The consensus recommendations of the Delphi expert panel can help support more uniform, transparent and effective actions by SMBs.

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Appendix A: Delphi Panelists
For more complete biographical information about the Delphi panelists, please visit http://dx.doi.org/10.13140/RG.2.2.11793.15207.

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