



July 10, 2008

Michael Johns, M.D.  
The National Academies  
500 Fifth Street, NW  
Washington, DC 20001

RE: Optimizing Graduate Medical Trainee (Resident) Hours and Work Schedules to Improve Patient Safety

Dear Dr. Johns:

I write to you on behalf of the 2 million member Service Employees International Union (SEIU), whose numbers include 85,000 nurses, 19,000 physicians and 900,000 hospital, nursing home, home health aide and public health workers. As such, SEIU has a deep and abiding interest in the ability of our nation's healthcare system to achieve the highest quality of patient care, while protecting the health, safety and welfare of those employees whom we rely upon to provide this vital care.

Of particular interest – and the subject of this letter – is the Institute of Medicine (IOM) panel to which you serve as chair: *Optimizing Graduate Medical Trainee (Resident) Hours and Work Schedules to Improve Patient Safety*. We understand that this Committee was formed in late 2007 at the behest of members of the U.S. House of Representatives Energy and Commerce Committee who were conducting an investigation into preventable medical errors.<sup>1</sup>

In their March 29, 2007 letter to the Acting Director of the US Department of Health and Human Services/Agency for Healthcare Research and Quality (AHRQ), Dr. William Munier, US Representative John Dingell, Energy and Commerce Chairman, along with Committee members Joe Barton, Bart Stupak and Ed Whitfield, explained that their interest in the association of medical errors with physician and resident work schedules was heightened by:

*“...a study published in December 2006 by the Public Library of Science and funded by AHRQ entitled the Impact of Extended-Duration Shifts on Medical Errors, Adverse Events and Attention Failures. The study found medical errors resulting in adverse events, including death, due to sleep deprived and overextended medical residents and interns, substantiating previously held concerns about physician work schedules.”<sup>2</sup>*

<sup>1</sup> [http://energycommerce.house.gov/Press\\_110/110-ltr.032907.HHS.Munier.pdf](http://energycommerce.house.gov/Press_110/110-ltr.032907.HHS.Munier.pdf)

<sup>2</sup> [http://energycommerce.house.gov/Press\\_110/110-ltr.032907.HHS.Munier.pdf](http://energycommerce.house.gov/Press_110/110-ltr.032907.HHS.Munier.pdf), p. 1

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The letter went on to reference two previously published IOM reports which have pointed to the connection between preventable human error and the long hours that health care workers are scheduled to work. In *To Err is Human: Building a Safer Health System*,<sup>3</sup> published in 1999, these US House of Representatives members called attention to the report's suggestion that:

*“the healthcare delivery system design jobs with attention to human factors, including: attending to the effect of work hours, workloads, staffing ratios, sources of distraction, and an inversion in assigned shifts (which affects worker’s circadian rhythms) and their relationship to fatigue, alertness, and sleep deprivation.”*<sup>4</sup>

The second IOM report referenced in the Congressional letter was *Keeping Patients Safe: Transforming the Work Environment of Nurses*, published in 2003.<sup>5</sup>

*“The study concluded that long work hours was one of the most serious threats to patient safety and that this issue needed to be addressed by Congress. The study also recommended that healthcare organizations need to create organizational cultures of safety that promote the reporting, analysis, and prevention of errors.”*<sup>6</sup>

With this important evidence as backdrop, US House of Representative members Dingell, Barton, Stupak and Whitfield asked Dr. Munier and AHRQ to:

*“assist us in ascertaining if the long work hours of physicians and residents also are among the most serious threats to patient safety.”*<sup>7</sup>

SEIU applauded this Congressional action and was pleased to learn that in a May 2, 2007 letter, AHRQ Director Dr. Carolyn Clancy thanked these Representatives for their:

*“specific interest in reducing preventable medical errors associated with healthcare providers’ work schedules....To this end AHRQ agrees on the value of an IOM study focused on assessing the impact of reduced work hours and recommending strategies to facilitate the adoption of reasonable work schedules to improve safety in the healthcare work environment.”*<sup>8</sup>

As a result, the IOM established *Optimizing Graduate Medical Trainee (Resident) Hours and Work Schedules to Improve Patient Safety*. SEIU takes the time to detail this history because it is evident from the outset that there is considerable Congressional (and general public) concern as well as a considerable body of evidence-based scientific research – much of it funded by AHRQ – to conclusively establish that acute and chronic sleep

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<sup>3</sup> Kohn, L, et. al. *To err is human: building a safer health care system*. National Academy Press. 1999.

<sup>4</sup> [http://energycommerce.house.gov/Press\\_110/110-ltr.032907.HHS.Munier.pdf](http://energycommerce.house.gov/Press_110/110-ltr.032907.HHS.Munier.pdf), p. 2.

<sup>5</sup> Page, A, et. al. *Keeping patients safe: transforming the work environment of nurses*. National Academy Press. 2003.

<sup>6</sup> [http://energycommerce.house.gov/Press\\_110/110-ltr.032907.HHS.Munier.pdf](http://energycommerce.house.gov/Press_110/110-ltr.032907.HHS.Munier.pdf), p. 2.

<sup>7</sup> *Ibid.*, p. 2

<sup>8</sup> Letter, Carolyn Clancy MD to the Honorable Joe Barton, Committee on Energy and Commerce. 5/2/07.

deprivation derived from punishing work schedules contributes to thousands of preventable medical errors occurring each year in our nation's hospitals.

Of particular note, the AHRQ website features "*10 Patient Safety Tips for Hospitals*" culled from more than 100 patient safety projects funded by the agency since 2001. #3 on the list (*Limit shifts for hospital staff, if possible*) calls for the consideration of:

*"options to minimize shifts of more than 16 consecutive hours by residents, interns and nurses working in hospitals."*<sup>9</sup>

Indeed, when Dr. Clancy spoke before your Committee at its first public session held in Washington, DC on December 3, 2007, she stated:

*"As you know, some of our colleagues continue to believe that there is no correlation between the extended work hours of graduate medical trainees and quality of care. They say the long hours are part of the training and reducing them would put these trainees at risk of missing valuable learning opportunities. You and I know better...."*

*Furthermore, we know that despite rules being put in place in 2003 to govern resident work schedules, the culture and traditions in training remain strong. What we need are some levers – maybe even some financial levers – that make it easier for people to do the right thing.... I think the bottom line is that there must be change. The era of graduate medical trainees being exposed to extended hours for no good reason is about to come to a close. The reasons for keeping this going are not rooted in science. They are based on opinion and tradition – perceived rather than actual barriers to change. At some point we have to acknowledge the fact that a human being can work only so long without sleep deprivation becoming a factor. Research shows that we do not do well in transitions of care, but limiting these transitions by having work hours that are not compatible with human physiology is not the answer...with this committee, we have a chance to go beyond providing answers...We can send Congress recommendations that can have an impact in the quality of care across the nation."*<sup>10</sup>

In the question and answer period that followed, Dr. Clancy was asked by a panel member:

*"When we are done, what do you not want from this committee? "*

She replied: *"Congress would be disappointed if it were told 'we need more research.' That would not be tolerated."*

SEIU is well aware of the external pressure that caused the ACGME to reconsider its long held position that there should be *no* across specialty work hour limitations for resident physicians. The 2001 filing of federal legislation and a petition for relief from

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<sup>9</sup> 10 patient Safety Tips for Hospitals, <http://www.ahrq.gov/qual/10tips.htm>

<sup>10</sup> Clancy, C. Remarks from study sponsor. Committee on Optimizing graduate Medical Trainee (Resident) Hours and Work Schedules. Dec. 4, 2007, Institute of Medicine. Washington DC

the U.S. Occupational Safety and Health Administration convinced the ACGME that it had better take some type of action before the public acted for it. In 2002, the ACGME announced that its first across specialty “*duty hours*” limits would go into effect on July 1, 2003.<sup>11</sup>

The ACGME decided to limit consecutive shifts of 24 + 6 hours for ‘continuity of care’, paperwork, etc. This 24 + 6 is universally interpreted as simply a thirty hour shift in the hospital; most often with little or no time for sleep. Furthermore, these shifts can be scheduled as often as every third night -- for months, even years of residency training. The impact of these schedules on preventable medical errors is undeniable.

Resident physician health and safety is also at risk because acute and chronic sleep deprivation has also been shown to increase the incidence of car crashes<sup>12 13</sup> and needle stick injuries (with potential exposure to HIV, HBV and HCV).<sup>14</sup>

It is critical to point out that the ACGME did not base its work “limits” on sound, evidence-based science, despite the fact that there is extensive data across industries linking sleep deprivation with an increased risk of errors and accidents.<sup>15</sup>

Ironically, one of the most compelling studies published in recent years on the connection between lack of sleep and clinical performance was authored by Ingrid Philibert, MHA, MBA, ACGME Senior Vice-President for Field Services, whose duties include oversight of the ACGME’s work hour limits. Published in the journal *Sleep: “Sleep Loss and Performance in Residents and Nonphysicians: A Meta-Analytic Examination,”*<sup>16</sup> she comprehensively reviewed 60 prior studies investigating the effects of sleep loss on the performance of 959 physicians and 1,028 nonphysicians.

Dr. Philibert states:

*“The finding that sleep loss of 24 to 30 hours produces a -.986 reduction in physicians’ aggregate cognitive and clinical performance suggests that residents may experience significant performance decrements under the current [ACGME] minimum standards,”*

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<sup>11</sup> Report of the ACGME Work Group on Resident Duty Hours and the Learning Environment: Executive Summary, p. 6. February 2002.

<sup>12</sup> Barger, LK. Extended work shifts and the risk of motor vehicle crashes among interns. *NEJM*. 2005. 352:125-134.

<sup>13</sup> Wendt JR, et. al. The resident by moonlight: a misguided missile. *JAMA*. 1988; 259 (1): 43-44.

<sup>14</sup> Ayas, N, Barger, LK. Extended work duration and the risk of self-reported percutaneous injuries in interns. *JAMA*. 2006; 296:1055-1062.

<sup>15</sup> Dinges, DF. An overview of sleepiness and accidents. *J Sleep Research*. 1995;4(Supple.2):4-14.

<sup>16</sup> Philibert, I. Sleep loss and performance in residents and nonphysicians: a meta-analytic examination. *SLEEP*. 2005. Vol. 8. No. 11: 1351-1353.

She goes on to suggest that:

*“the weekly hours and continuous wakefulness permitted under the current national minimum standards for residents may not completely guard against the negative effect of sleep loss on cognitive and clinical performance.”*<sup>17</sup>

Christopher Landrigan, MD, MPH, reviewed the meta-analysis in an editorial appearing in the same issue of the journal *Sleep*, and commented on Dr. Philbert’s cautiousness by observing that:

*“her data and the emerging literature...go much further than this. Residents working 30 hours in a row under the current guidelines of the ACGME perform as poorly as if intoxicated. The intelligent, motivated, highly-educated graduates that our medical schools produce are reduced by an overnight, 24-hour shift to a fraction of their intellectual selves. Our patients are endangered by their work hours. And as Barger et al demonstrated recently, our trainees’ themselves and the general public are endangered: residents driving home after shifts of >24 hours have twice the odds of crashing their cars.”*<sup>18</sup>

By comparison and of particular note, other economically developed countries with high quality healthcare systems have taken significant steps to reduce resident physician work hours. New Zealand took decisive action in the late 1980’s (consecutive shifts no greater than 16 hours and weekly totals no greater than 72 hours) followed by the United Kingdom in 2004 (to comply with the European Union Work Time Directive (EUWTD) of no more than 58 hours per week).<sup>19</sup> This information is of relevance as Task #1 of the charge to this IOM Committee is to gather:

*“Evidence on the strategies, practices, interventions and tools that have been employed in the United States, Australia, Canada, Europe, New Zealand and elsewhere to optimize the work schedules for residents to assure the safety and quality of patient care.”*<sup>20</sup>

However, SEIU was disappointed to learn that of the more than thirty people invited to present data at the Committee’s four public hearings on December 3, 2007, March 4, and May 8-9, 2008, only one, Bernard Ribeiro of the Royal College of Surgeons in the UK, presented an international perspective and his was decidedly negative on the UK efforts to reduce hours for surgeons.<sup>21</sup> We believe that this IOM Committee can learn much from the international experience if we focus on the evidence and the similarities, rather than the differences, of our respective systems of training physicians. The 2007 Annual National Forum on Quality Improvement in Health Care held in Orlando, Florida, for example, included a presentation from the UK entitled *“The Hospital at Night Program:*

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<sup>17</sup> Ibid. p. 1397.

<sup>18</sup> Landrigan, C. *SLEEP*. 2005. Vol. 8. No. 11: 1352.

<sup>19</sup> Landrigan, C. New Zealand junior doctors – an analysis of current scheduling practices and recommendations for the future. June 12, 2006.

<sup>20</sup> [www.iom.edu/residenthours](http://www.iom.edu/residenthours).

<sup>21</sup> Second meeting of the Committee on Optimizing Graduate Medical Trainee (Resident) Schedules, Irvine, CA. Mar. 4, 2008.

*Reducing Risks at Our Most Vulnerable Time of Day.*”<sup>22</sup> The Hospital at Night program originated in the UK to achieve compliance with the EUWTD hours limits on physicians.

SEIU can only hope that in closed session, the Committee has been exposed to much more balanced data on the experiences of other countries, who continue to train physicians and produce health outcomes that match and even rival those of the U.S.

Relative to the positive steps taken by other countries, one is left to ponder what is so unique about the training of resident physicians in the U.S. that we still find it acceptable to ignore the scientific evidence of the connection between acute and chronic sleep deprivation and decreased patient safety in our teaching hospitals? Perhaps a 2002 *New York Times* editorial entitled “*Sleep Deprived Doctors*” said it best when it observed that:

*“Despite the tough talk [on enforcing hours limits] the council (ACGME) faces an inherent conflict of interest. Its board is dominated by the trade associations of hospitals, doctors and medical schools, all of which benefit from the cheap labor provided by medical residents.”*<sup>23</sup>

SEIU, Congress, and the public at large expect no less from this IOM panel than for the Committee members to dispassionately review the scientific evidence and make the sound recommendations – both short and long term – that will improve the health and safety of patients who depend on teaching hospitals for their care. The public – at a minimum- has a right to know that the nurses and doctors taking care of them are alert and awake.

SEIU also understands that the health care industry has enormous challenges before it, not the least of which is financial viability and expansion as we as a nation begin the critical discussion about how to provide affordable, accessible and quality health care for all. Despite the challenges of hospital and medical education funding, the physician (and other health care worker) supply limitations, and the powerful culture of medicine that inexorably clings to the status quo,

**SEIU urges this Committee to:**

- 1. Act on the evidence and recommend shifts for resident physicians that are no greater than 16 consecutive hours;**
- 2. Recognize that change will not occur unless all teaching hospitals are required by law to adhere to the same safe hours limits *and funded accordingly*;**
- 3. Insist on rigorous enforcement of work hour limits by an external agency that has no economic self interest in perpetuating the status quo.**

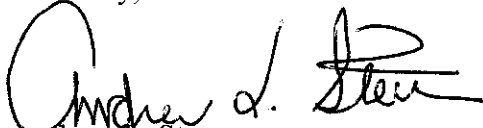
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<sup>22</sup> <http://www.ihl.org/IHI/TRopics/PatientSafety/SafetyGeneral/ImprovementStories/HospitalatNightProgram.htm>.

<sup>23</sup> “Sleep Deprived Doctors,” *New York Times*, June 14, 2002.

SEIU is committed to working for these changes – but also to create a new healthcare system that funds the training of physicians such that safe work hours are not only an ideal, but the reality for all teaching hospitals.

Sincerely,

A handwritten signature in black ink that reads "Andrew L. Stern". The signature is written in a cursive style with a large initial "A" and a distinct "S".

Andrew L. Stern  
International President