Re-Organization of Pain Care: Neuroplasticity to Health System Plasticity

At a time when pain management in many countries faces extraordinary challenges in channeling our intellectual resources into policies that actually result in better clinical outcomes, this edition of *Pain Medicine* brings a hopeful message about health system plasticity in the service of patient rehabilitation. The concept of plasticity is as important to the process of health care re-organization as it is to our understanding of the neurobiology of pain. We know that the brain responds structurally and functionally to environmental conditions and exposures such that neural networks and their dysfunction can be manipulated experimentally and by specific treatment procedures to reverse or modulate the pathophysiologic changes caused by persistent pain signals from the periphery interacting with psychological states. Similarly social systems, as expressions of our collective executive function and sociocultural values and intelligence, can also be manipulated experimentally by carefully constructed strategies that encourage evolution to a more functional state. In this issue of *Pain Medicine*, Davies, Quintner and colleagues demonstrate how STEPS, a tiered delivery model focused on patient education and self-management, may alter the clinical burden of chronic pain on the health system, reduce wait time for clinical consultation by a specialist, improve patient satisfaction, and reduce costs [1]. In their accompanying Perspective article, they state, “The proposed paradigm shift in service delivery is driven by informed consumers partnered with responsive health professionals” [2]. This principle might well inform the politicians planning the American health care system, which is beset by the burdens of competing economic interests and their resultant expense to quality of care and cost. The advantages of a population-based approach to addressing chronic disease is already demonstrated in the health care systems in Australia, various European countries, Canada and in America, where entities such as the Department of Defense and Veterans Health System are developing a program for pain based in the medical home model and fashioned after the successful ECHO program in New Mexico that delivers specialty level services to where the patients resides, even far from major medical centers. We applaud Davies’ approach which brings the patient, and family by extension, into the clinical team with responsibilities and expectations for adaptation and change. Their approach now extends the rehabilitation model, which was developed originally to address disability in a patient population with the most entrenched chronic pain, and based its approach on retraining the patient to take responsibility for managing their symptoms and adapting their behavior to conform to the demands of their work environments. We now understand, through studies demonstrating neuroplasticity of the central nervous system, the mechanisms underlying the success of this approach. Will our pathologically constructed health system, with its lobby-driven entitlements and policies systemically reinforcing behaviors that perpetuate ineffective care, demonstrate a similar “social” plasticity in response to socioeconomic contingencies?

To help answer this question, *Pain Medicine* created a forum for health services research, the Primary Care and Health Services Research Section under Dr. Bair’s leadership, and is launching a new Section, Pain Rehabilitation, that will promote research in functional restoration. At a time when it is hard for millions of Americans to find work, the health care system needs to reorganize pain treatment to optimize the chances that injured workers will contribute to our economic well-being rather than burdening it. Our present model of pain care drains our health care system of resources, and clinicians of morale, with little impact on population health. As our new Section Editors, Drs. Clark, Hooten and Sanders, write in their introductory editorial, this issue has particular poignancy for the longitudinal well-being of our warriors as they return from the battlefield to resume lives with their families in our communities. The projected dollar costs of caring for injured soldiers who cannot return to work is staggering—several trillion dollars as calculated by Harvard economists. The human and social cost in suffering of patients’ families is mind-numbing.

Opportunity smiles on the prepared. Our new Editors have “stayed the course”, maintaining their commitment to pain rehabilitation when so many programs closed down, not for lack of effectiveness but due to a shift to “piecework” health care, which we know does not work for chronic disabling pain. For many years Michael Clark, associate professor at University of South Florida, has successfully directed a multi-disciplinary pain rehabilitation center at the James Haley VA Medical Center in Tampa, which has trained professionals in pain rehabilitation and contributed scholarly papers to our literature and leadership to the VA’s pain enterprise. When the current Middle East wars began creating their casualty lists, so that the VA and military health systems required redesign, his model was ready for exploitation. His article in *Pain Medicine* in 2006 [3] was the first to alert our health care system about the high prevalence and burden of chronic pain in our returning troops and his Center has contributed some of our most important papers elucidating the prevalence, course
and outcomes of warriors with the most severe injuries. His Center, designated a “Clinical Center of Excellence” by the American Pain Society in 2009, is a model for the regional tertiary care pain centers that the Veterans Health System is currently developing as part of its “stepped care” redesign of pain management. He was chosen the 2010 winner of the prestigious ASMUS Prize, awarded yearly to only one non-physician health care provider in the federal health care system. Michael Hooten, assistant professor at Mayo Medical School and from a background of residencies in internal medicine, psychiatry, and anesthesiology, can be considered “completely” trained for his role as medical director of Mayo’s long-standing, prestigious pain rehabilitation program. A principle focus of Michael’s scholarship has been describing and unraveling the process of rehabilitation from chronic pain and understanding the factors that contribute to its success. He has been a prolific author and contributor to our literature as Director of Translational Pain Research. Steve Sanders, who recently assumed the reins of Tampa’s outpatient VA Pain Rehabilitation Program, for many years directed behavioral medicine and pain rehabilitation research and treatment programs in Georgia and Tennessee as a Clinical Professor of Rehabilitation at Emory University and the University of Tennessee. He has contributed considerable leadership to the pain rehabilitation and behavioral medicine enterprise, offering cogent analyses and early warnings regarding the looming crises with pain rehabilitation programs [4], as well as developing and promoting national, evidence-based practice guidelines for the application of interdisciplinary pain rehabilitation [5]. Steve has maintained leadership roles in the American Pain Society over the years, most notably in his recent stint as Editor of its Newsletter. He continues to be an important spokes-

person for the field. We look forward to their leadership in helping our field’s plastic adaptation to an inexorably changing health care environment and the challenges faced by our patients in accessing competent and effective rehabilitation from the morbidities associated with chronic pain.

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References
4 Sanders SH. Chronic pain rehabilitation; should and can it be saved? APS Bulletin 2001;11(2):5–17.