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SPECIAL 225TH ANNIVERSARY EDITION

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Editorial

Jane Lochrie, MD

Welcome to the Worcester District Medical Society's (WDMS) 225th Anniversary Issue!! The WDMS was established in 1794 and we are the third oldest medical society in the country. Please read the President's Message to see how we will be celebrating on September 27, 2019.

After many decades of little changes in medical education, the past 25 years have witnessed sweeping changes in the curriculum in undergraduate, graduate and continuing medical education. Terms such as "team-based care, high-value care, population-centered care, person-centered care, duty hours and work-life balance" were unheard of 25 years ago. Reading through the articles, lifestyle is a persistent theme for many of authors. This issue of Worcester Medicine examines these changes over the past 25 years.

In the first article, Dr. Sonia Chimienti discusses how starting a family was discouraged during her time in medical school. Today, as Associate Dean for Student Affairs she frequently counsels students with young children. Though navigating the medical school curriculum is not easy for these students, the process of applying to medical residency with children has unique challenges.

Brooke Beckmen, BA, Germán Chiriboga, MPH, Suzanne Cashman, D. Sc, and Jeroan Allison, MD, Sc. M describe a unique curriculum at the University of Massachusetts Medical School that focuses on racial/ethnic disparities and the role it plays in health equity. (Spoiler Alert: we are planning an entire issue dedicated to this topic in an upcoming issue of Worcester Medicine). The purpose of this course is to challenge students to think beyond the human body and consider how the environment and their own unconscious biases affect the health of their patients.

Moving into the realm of Graduate Medical Education, Marilyn Leeds, MPH reviews the many changes and challenges that education at this level experienced over the past 25 years. This includes the closure of many of the area hospitals and the restructuring of the UMass Medical Center to the two institutions: the medical school and a private nonprofit hospital system. The ACGME has concentrated on quality and safety, competencies and outcomes, creative solutions for challenges unique to each program, health care disparities, diversity and physician wellness.

Joel Popkin MD, MACP is in a unique position, as a former program director during the introduction of work hour restrictions, to debate the pros and cons of duty hours. He examines the research in this area including his own research and opines that sleep deprivation is more likely to cause mistakes and saturate our compassion receptors, while multiple handoffs are more likely to cause mistakes and dull the sense of ownership producing "shift mentality" that can intensify burnout.

Dr. Anthony Izzo discusses an important topic that is often overlooked when discussing medical education, Continuing Medical Education and lifelong learning and how this relates to Massachusetts regulations and the new Maintenance of Certification. He describes the strict oversight to ensure that there is improvement in physicians' abilities, performance in practice or patient outcomes and that there is no commercial influence. He reminds us that keeping current on dynamic changes is essential to proving good care.

Nursing has not been immune to these changes. Maureen Wassef, PhD, RN states that To Err is Human served as the impetus for curriculum change in nursing education. Changes are a direct response to both the healthcare needs of patients as well as the state of healthcare delivery. The Nurse of the Future Competencies is a vision that focuses on the premise that education and practice partnership is the key to effective program design and implementation of the knowledge, skills and attitudes necessary for nursing practice. Most of the transformation in nursing practice is related to achieving higher levels of education and training with higher proportions of nurses educated at the baccalaureate level or higher, including the advance practice nurse and the Doctorate in Nursing Practice.

Karyn Sullivan, ParmD, MPH, RPh, emphasizes the importance of interprofessional education (IPE) which is now a requirement for most health professional degree programs. This includes working with individuals of other professions to maintain a climate of mutual respect and shared values, communication skills, team dynamics and active learning. IPE occurs when a learning session involves students from at least two professions and is designed to allow for interprofessional communication and collaboration.

Alex Newbury, our student representative on the Editorial Board (soon to be our resident representative) writes about his experience extending medical school for a fifth year. He states that this is increasingly popular with up to two-thirds of the student body at some schools making this decision. The extra year affords students to do research, take additional coursework and pursue another degree, or as in his case, raise children. With the average age of medical students continuing to rise and with a higher proportion of women entering medicine, medical education needs to evolve to include the growing needs of the student-parent.

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President's Message

I would like to thank all of you for giving me the opportunity to serve you as your president for a second one-year term. I am excited, and hope that you are too, regarding the 225th Anniversary of the Worcester District Medical Society. As you know, our Society was established in 1794 and is the 3rd oldest Medical Society in the United States after Boston (1781) and Philadelphia (1787).

I am sure you have already received the information about the Gala Celebration which is going to be held on Friday, September 27, 2019, 5:30 p.m. at Mechanics Hall. We are hoping that you will help us raise funds for the Scholarship Committee of the WDMS by attending this Gala. Each year, our graduating medical students leave school with hundreds of thousands of dollars in debt. This debt plays an integral part of which specialty of medicine they will be training and practicing in future. Unfortunately, the private practice in primary care in rural or underserved areas does not come on the top of those choices. I know the amount of money we offer each year through our scholarship award is just a drop in the bucket. But something is better than nothing to show our fresh graduates that we care and feel the pain of their financial burden.

As you may already know, by the year 2035, there will be a major short fall (44,000) in primary care providers in the United States. Will that gap be filled by NPs and Pas? Or do we owe to our population a well-trained and educated Family Medicine Practitioner, Pediatrician or Internist to lead our health care teams to provide the health care they deserve? I do not want to down play the work of NP's and PA's. They are a vital part of every health care team and that is the way it should be. As the practice of medicine is getting more and more complex, we need help from every sector of health care to work together for the common goals of quality, affordable, timely, and culturally sensitive and patient centered health care. This includes ALL residents of the United States. We should also not forget about the social determinants of health. I know it is a tall order, and it may never happen, but there is no harm in dreaming about it. We can only hope it will come true in our lifetime.

I want to take this opportunity to thank Martha, Melissa and all the members of the Gala committee for the many long hours they have devoted to putting this Gala together. I am looking forward to seeing all of you at the Gala. We need your support if our efforts to raise funds for our Scholarship Committee will be realized. Please make every effort to attend the Gala on September 27, 2019. We have organized a wonderful program for you. We will have a delicious variety of food, a presentation on the history of WDMS and dancing with live big band music for your entertainment and enjoyment.

I would like to thank our Worcester Medicine Editorial Board for publishing this special issue to commemorate the 225th Anniversary of our WDMS and for the incredible job they did in focusing on the "Past, Present and Future" of medical education.

As I have always said, "Get involved and be counted; if you want to see change then you need to be part of the change."

Have a wonderful, enjoyable and safe summer.

Thanks,

Sahdev Passey

Pledge Form

The Worcester District Medical Society would like to thank you for your support of our 225th Anniversary Gala. This Gala will be held on Friday, September 27, 2019 from 5:30 p.m. at the Mechanics Hall, Worcester. Below are the details of our sponsorship opportunities, the cost of placing an ad in the commemorative brochure published for the Gala, and also instructions on how you may contribute directly to the WDMS Scholarship fund, if you choose to do so.

All the proceeds from this Gala, after expenses, will be donated to the WDMS Scholarship Fund.

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A Glance at the Last 25 Years of WDMS (Medical) Education

1992, September	**WIMB -Sexual Harassment, Gender Bias and the Structure of Medicine**	
	Speaker:	Sharyn Lenhart, MD
1993, September	**2nd WIMB-Women, Medicine and Beyond: Policy, Politics and Polemics**	
	Speaker:	Harriette L. Chandler, PhD
1994, September	**3rd WIMB-With a Bit of Humor: A Decade as a Department Chair**	
	Speaker:	N. Lynn Eckhert, MD
1995, February	**Problems Faced by Physicians in the Worcester District: Then and Now**	
	Orator:	Ralph C. Monroe, MD
1995, September	**4th WIMB-Our Values: Ourselves**	
	Speaker:	Lois B. Green
1995, November	**FDM- Managed Care and Morality of the Marketplace**	
	Speaker:	Jerome Kassirer, MD
1995, November	**A sequel to the November 01, 1995 Program/FDM-Managed Care and Morality of the Marketplace**	
	Speakers:	Harris Berman, MD Herbert Dean, MD John Powell Richard Cornell, MD
1996, February	**Radiology: 100 Years Old and Where to Next**	
	Speaker:	Murray L. Janower, MD
1996, September	**5th WIMB-The Women's Health Initiative: A Study for Post-Menopausal Women**	
	Speaker:	Judith K. Ockene, PhD
1997, February	**Socrates, Einstein and the Worcester District Medical Society**	
	Orator:	H. Brownell Wheeler, MD
1997, September	**6th WIMB-Impact of Managed Care on Women Healthcare Providers**	
	Speaker:	Atty. Gail D. Sillman
1998, February	**Stories of Shame and Humiliation in Physicians**	
	Orator:	Aaron Lazare, MD
1998, April	**ABM-Massachusetts on the Cusp; Health Care in the Next Millennium**	
	Speaker:	Representative Harriette Chandler
1998, September	**7th WIMB-Tend Your Own Garden**	
	Speaker:	Lynda M. Young, MD
1998, October	**Healthcare Fraud: Are You at Risk?**	
	Speaker:	Susan Winkler
1998, November	**Asking the Tough Questions: Advance Directives**	
	Speaker:	John Golinski, EdD

1999, February	**Some Hopes and Predictions for Medicine**	
	Orator:	Peter Levine, MD
1999 , September	**8th WIMB- Caring for Ourselves and Others: Stress Reduction Through Mindfulness**	
	Speaker:	Elana Rosenbaum, MS, MSW
1999, October	**Complementary and Alternative Medicine**	
	Speakers:	Michael Cirigliano, MD, FACP William Harlan, MD John Kabat Zinn, PhD (plus 8 Workshop Speakers)
2000, February	**Healthcare Delivery-Deliverers**	
	Orator:	Arthur M. Pappas, MD
2000, September	**9th WIMB-The Erosion of Physican Collegiality: What We Are Losing and How to Get it Back**	
	Speaker:	Robin S. Richman, MD, FACOG
2000, October	**The Nature and Nurture of Mail Character: A Medical/Musical Perspective**	
	Speaker:	Eli Newberger, MD
2001, February	**May I Have the Next Slide Please? Deconstructing CME**	
	Orator:	Lynda M. Young, MD
2001, September	**10th WIMB-Invest In Your Own Profession**	
	Speaker:	Catherine Dudley, CFA
2002, February	**Adoption and Foster Care: Is it For You?**	
	Orator:	Harvey G. Clermont, MD
2002, September	**11th WIMB-Women as Mentors**	
	Speaker:	Marianne Felice, MD
2003, February	**We Have Met The Aged And They Are Us**	
	Orator:	Jerry H. Gurwitz, MD
2003, April	**Professional Liability Crisis in Massachusetts**	
	Speaker:	Barry M. Manuel, MD
2003, September	**12th WIMB-Complementary and Alternative Medicine: A Clinical Perspective**	
	Speaker:	Genevieve Anand, MD, MPH
2003, October	**Management of Childhood Overweight**	
	Speaker:	Vivien Morris, MPH, MS, RD, LDN
2003, November	**FDM-Critical Condition: The Massachusetts Practice Environment and What We Can Do about It**	
	Speaker:	Thomas Sullivan, MD
2004, February	**The Most Important Patient of Our Time**	
	Orator:	William G. Lavelle, MD
2004, February	**WIMLF-Challenges Facing Women In Medicine**	
	Moderator:	Rebecca Spanagel, MD (plus panel of 6)

2004, October	**Early Recognition of Alzheimer's Disease: Advances in Disease Research, Recognition & Risk Management**	
	Speaker:	Daniel D'Andrea, MD
2005, February	**Old Dogs, New Tricks**	
	Orator:	B. Dale Magee, MD, MS
2005, September	**14th WIMB-25 Years of Medicine and Still Loving It**	
	Speaker:	Ann Errichetti, MD
2005, October	**Communications and Patient Satisfaction: The Link to Successful Physician-Patient Relationships**	
	Speaker:	Adam Schlager
2006, February	**Do No Harm**	
	Orator:	Harvey Kowaloff, MD
2006, March	**Winning with Pay for Performance**	
	Speaker:	B. Dale Magee, MD, MS
2006, April	**ABM-Are the Birds Trying to Tell US Something? Avian and Pandemic Influenza**	
	Speaker:	Alfred DeMaria, Jr., MD
2006, April	**Targeting Violence in Worcester**	
	Speakers:	Gary Gemme Michael Hirsh, MD
2006, September	**15th WIMB-Balancing Career and Family**	
	Speaker:	Barbara A. Rockett, MD
2007, February	**the Class of 1980: Reflections on Medical Education Then and Now**	
	Orator:	Michele Pugnaire, MD
2007, March	**From Socrates to S.O.D.I.U.M.: The Dying Experience in Worcester (S.O.D.I.U.M. Snapshot of Dying in an Urban Milieu)**	
	Speakers:	Barry Baines, MD, Dennis Batey, MD
2007, March	**WIMLF-Keeping the Balance**	
	Speaker:	Rebecca Spanagel, MD (Plus 5 panel members)
2007, September	**16th WIMB-Making A Difference**	
	Speaker:	Alex Calcagno
2007, October	**When in Doubt: Rule it Out**	
	Speakers:	Susan Abend, MD Sheldon Benjamin, MD Lauren Charlot, LICSW, PhD Paula Ravin, MD
2008, February	**Profiles in Medical Courage; A Message of Hope, Survival, and Transcendence**	
	Orator:	Michael Hirsh, MD
2008, March	**Taking the Practitioners Pain out of Pain Management: Practical Aspects of Pain Management for the Non-Pain Specialist**	
	Speaker:	Suzanna Makowski MD

2008, March	**WIMLF-Road To Success**	
	Speaker:	The Honorable Konstantina B. Lukes
2008, April	**Better**	
	Speaker:	B. Dale Magee, MD, MS
2008, September	**17th WIMB-Breaking the Glass Ceiling**	
	Speaker:	Robin S. Richman, MD
2009, February	**Monitoring Competence and Enhancing Performance: Effective Ways to Support the Practicing Physician**	
	Orator:	Richard Aghababian, MD
2009, February	**18th WIMB-The Writing Prescription**	
	Speaker:	Emily Ferrara, MA
2009, March	**Complementary and Alternative Medicine: Are You up to Date?**	
	Speaker:	David Eisenberg, MD
2009, March	**WIMLF-Reflections on a Half Century as a Women in Medicine: What's Changed and What Hasn't**	
	Speaker:	Eileen M. Quellette, MD
2009, October	**Forum on Healthcare Reform Minding The Gap: Comparisons of the National Healthcare Service and**	
	Speaker:	B. Dale Magee, MD, MS
2010, February	**You Have Saved Our Lives-The Making of a Doctor; a Personal Account of a Physician's Life & Experiences**	
	Orator:	Guenter Spanknebel, MD
2010, March	**AARA Health Information Technology Incentives (the American Recovery and Reinvestment Act of 2009)**	
	Speaker:	Mickey Tripathi, PhD, MPH
2010, March	**WIMLF-Mindfulness In Medicine**	
	Speakers:	Saki F. Santorelli EdD, MA Suzana Makowski, MD, MMM, FACP
2010, September	**19th WIMB- The Batey Experience: Refections of doctoring and the privlege of serving**	
	Speaker:	Michele P. Pugnaire, MD
2010, October	**The Cornerstones of Health Reform: What Patients and**	
	Speaker:	Lynda Young, MD
2011, February	**That Which Endures: The Quiet Heroes of Medical Discovery**	
	Orator:	Anthony Esposito, MD
2011, March	**WIMLF-Graceful Self-Promotion**	
	Speaker:	Luanne E. Thorndyke, MD, FACP
2011, March	**Heal the Healer**	
	Speaker:	Luis Sanchez, MD

2011, September	**20th WIMB-finding Your Path to Inner Peace: Stress Reduction Opportunities for a Hectic Life**	
	Speaker:	Diane Pingeton, MD
2011, October	**Charting the Course: Health Care in the Post-Reform Era**	
	Speaker:	Lynda Young, MD
2012, February	**50 Years of Medicine; Less Art, More Science**	
	Orator:	Charles A. Birbara, MD
2012, February	**WIMLF-Mentoring Men and Women: Is it Different?**	
	Speaker:	Marianne E. Felice, MD
2012, March	**Safe Opioid Prescribing**	
	Panel:	Jeffrey Baxter, MD Grant Carrow, PhD Evan Horton, PharmD, RPH B. Dale Magee, MD, MS Fae Wooding, BS, PharmD, RPH
2012, September	**21st WIMB-Is Work-Life Balance Possible?**	
	Speaker:	Julia V.Johnson, MD
2012, October	**Update in Obesity Management**	
	Speaker:	Florencia Halperin, MD
2013, February	**From Flexner to Worcester: Medicine's Next Century Dawns**	
	Orator:	Michael F. Collins, MD
2013, March	**WIMLF-You Can't run in Pumps and Other Lessons Learned Over a Thirty+ Year Career in Medicine**	
	Speaker:	Michele G. Cyr, MD, FACP
2013, April	**Guns & Public Health**	
	Speaker:	David Hemenway, PhD
2013, September	**22nd WIMB-Get Energized, Get Informed, Make a Difference**	
	Speaker:	Alex Calcagno
2013, October	**CEO Forum**	
	Speakers:	Eric Buehrens Wayne Glazier, MD Patrick Muldoon, MBA, FACHE Eric Wexler, MBA
2014, February	**From the Roadside to the Bedside: Following the Saint of the Gutters**	
	Orator:	George M. Abraham, MD
2014, March	**WIMLF-Intimate Partner Violence: Response and Referral Within the Medical Practice**	
	Speaker:	Ginger Navickas
2014, September	**23rd WIMB-Covering the Middle East**	
	Speaker:	N. Lynn Eckhert, MD, MPH, DrPH

2014, October	**Medical Marijuana: Risks and Benefits**	
	Speakers:	James Broadhurst, MD
		Alfred DeMaria, Jr., MD
		Eric Ruby, MD, FAAP
		William Ryder, Jr., Esq.
2015, February	**Art & Medicine**	
	Orator:	Paul Steen, MD
2015, September	**24th WIMB-Healthy Living with the Y (YMCA)**	
	Speaker:	Kathryn Hunter
2015, October	**Child Abuse & Trauma: Recognition & Response**	
	Speaker:	Heather Forkey, MD
2016, February	**Symphony of the Brain**	
	Orator:	Joel Popkin, MD
2016, March	**WIMLF-Generations At Work**	
	Speaker:	Stacy Potts, MD, Med (plus 4 panelists)
2016, September	**25th WIMB-Perspectives In Health Care-Pre and Post- 2016 Elections**	
	Speaker:	Alex Calcagno
2016, October	**Preventing Physician Burnout: Understanding and Addressing the Underlying Causes**	
	Speaker:	Dian Shannon, MD, MPH
2017, February	**A Glass (more than) Half Full: Top Ten Reasons to be Optimistic About the Next 220 Years of Medicine in Worcester**	
	Orator:	Terence R. Flotte, MD
2017, September	**26th WIMB-Navigating Your Career Path; the Value of Looking Forward**	
	Speaker:	Lois Dehls Cornell
2017, October	**Safe Injection Facilities: Heresy or Creativity**	
	Speakers:	Matilde Castiel, MD
		Dennis Dimitri, MD
		Jessie Gaeta, MD
2018, February	**Twelve Lessons Learned About Leadership**	
	Orator:	Marianne E. Felice, MD
2018, March	**WIMLF-Sexual Harrassment in the Medical Community: We Too?**	
	Speaker:	Carol Bates, MD
2018, September	**27th WIMB-Women in Leadership**	
	Speaker:	Senator Harriette L. Chandler
2018, October	**Public Health Implications for Deregulating Marijuana**	
	Speaker:	Mark J. Neavyn, MD
2019, February	**Hope for Haiti: Healing One Patient at a Time**	
	Orator:	Jane A. Lochrie, MD
2019, March	**WIMLF-Cyber Security: What You Need to Know For Your Professional and Personal Life**	
	Moderator:	Lynda M. Young, MD
	Speakers:	Michael Desrosiers
		Adam Egdall
		Bruce Forman

Partnering for Success – Parenting and Medical Education

Sonia Nagy Chimienti, MD

When I began my medical studies in 1991, only one student in my class was married and had a child. I'm not sure how he navigated medical school as a father; we never discussed parenting back then. In residency, similarly, it was unusual to find a fellow resident who was married, let alone a parent. Many medical trainees of my generation chose to delay becoming a parent for many years, focusing on career first, thinking that it was impossible to advance and be a caregiver at home. It was quite common for us to delay family planning until well into our late 30's. At that point many of us realized that starting a family would not be as easy as we had thought. I never had a conversation with a faculty member or my dean of students about having a family; it seemed that we were on our own on this topic, and I personally felt that such a step was not encouraged. I recall at some points thinking to myself, "Why would anyone choose to add this burden of responsibility to their lives right now, when we have so much to do, so much that we need to learn, and so much to be accountable for?" Truth be told, I could barely manage to care for myself and my patients during my training let alone a child or partner/spouse.

As my career evolved and I became a Fellowship Program Director in the early 2000's, I experienced for the first time the challenges of navigating graduate medical education training requirements, when one of my Infectious Diseases Fellows became pregnant. At that time, fellows in our program were required to use their vacation time, unpaid time, and/or disability to carve out a mere 3-4 weeks of leave to care for a newborn/adopted child. Time that was missed beyond that needed to be made up on the tail end of their fellowship training. As the proportion of women in the physician workforce increases, and as all trainees consider the merits of beginning their families earlier, there is emerging interest and dialogue in both graduate medical education and undergraduate medical education regarding the need for policies to support and protect learners who are also parents during their training.1, 2

In my current role as Associate Dean for Student Affairs (ADSA), my perceptions and opinions on this topic have evolved. Looking at the experience of a student through the lens of a former Fellowship Program Director, educator, parent of three young children and caregiver for an elderly parent, I not only admire the dedication, organizational skills and focus of our medical students who juggle parenting and home responsibilities, I applaud their choices to begin families on a timeline that works for them. Since I became ADSA in 2015, an average eight students in each class of 125 have had small children. Some began school with families already established while some made the choice to have or adopt children during medical school. For each of these students, it's safe to say that navigating medical school as a parent has not been easy and that the process of preparing for residency programs has been relatively more challenging for those who are caring for and raising children; there are additional, important considerations in the content of the application to residency itself, as well as in the options for where to match. Geographic restrictions play a significant role, as proximity to a network of support is a prominent consideration. The metrics by which we measure success in medical school are geared more towards individual achievements; we celebrate a focus on academic, advocacy and research pursuits. Even students without families to care for often comment on the emotional toil of neglecting family, friends and loved ones while in the pursuit of excellence during their medical education.

When I met with one student a few years back, in preparation for his application to residency programs, I commented on the absence of any extracurricular activities during his three years as a student. He replied to me that his extracurricular work was being sure to be present for his children at soccer and baseball games, school plays and other events, to help them with their homework and be with them for dinner and bedtime. How does one articulate this beautiful and important choice to a residency program director in a way that compares favorably to the student who has volunteered at free clinics, conducted research and published their work?

While I do not have a good answer to this question, I am thrilled to partner with our parenting learners to modify the narrative with regard to how we measure, define and describe individual success in medical training and to better support their choices during medical school. Our students who are parents are remarkable in their focus, their resilience, dedication to both home and school, and their ability to navigate a system that is not yet structured to support them. They bring the perspective of the joys and challenges of parenting to their care of patients, and I believe that they have a dimension of empathy and understanding that enriches their experiences as student doctors.

This past year, I began work with some of our senior students on a handbook to help medical students who are parents to navigate their journey. We are working on policies that will guide them with regard to time off, that will support them upon their return from leave as they manage childcare challenges and breastfeeding choices, and that will help them to describe their journeys to residency programs in ways that highlight their achievements and the unique skills that they bring to their roles as healthcare providers. As a next step, the time has come to develop parental leave policies and offer childcare services that will allow all of our learners the opportunity to choose both studying medicine and parenting, and to allow them to excel at both.

Understanding Implicit Bias to Improve Social Determinants of Health: University of Massachusetts Medical School's SDH Curriculum

Brooke Beckman B.A., Germán Chiriboga M.P.H., Suzanne Cashman D.Sc., Jeroan Allison M.D.

Medical school may seem a straightforward process for many. Matriculating students learn about diseases, how to diagnose and how to treat a wide range of conditions with medicine. They also learn how to assess an individual's health through a series of scales, lab tests, and modern imaging and then how to use scientific models to solve problems. Aside from the "hard science" that is medical school, it has become increasingly apparent that in order to improve health, one must consider human complexity and how issues outside of the clinical realm affect health.

Some of these issues such as race and ethnicity, socioeconomic status, access to housing, physical and built environment, medically underserved populations, access to food, and other factors are among the most well documented social determinants of health (SDH) as defined by the WHO, "the conditions in which people are born, grow, live, work and age that shape health"[1]. Even though the U.S. has experienced improvement in overall health, health inequities continue to exist in very marked ways. This is particularly evident when considering two key indicators: life expectancy and infant mortality. The racial/ethnic disparity is dramatic when looking at the lowest and highest performing groups. While the overall mortality rate gap between different groups (race, ethnicity, income, etc.) have been closing dramatically over the last decade there continues to be a 17-year gap between life expectancy for African American males (around 72 years) and Asian Pacific Islander women (around 89 years). Black infants face a more than double mortality rate in comparison to white babies (11.4 versus 4.9 per 1,000 live births).[2]

The task of addressing these disparities is multifaceted and involves actors at the governmental, urban planning, education, and health sector levels among others. Within the health sector, medical students and faculty are well positioned to actively learn and intervene to decreasing the disparity gaps. Considering that race and ethnicity play such a major role in health inequity, it is crucial that they become a cornerstone in the process of preparing medical students to become health professionals equipped to create change within health systems and positively affect the social conditions that can make people sick[3].

While these fundamental topics are often avoided and ignored, it is for this exact reason that UMMS faculty felt it necessary to bring them to light in pre-clinical training with a noteworthy focus on the concept of bias. The role bias plays in health equity is yet another topic that is often overlooked, simply because many clinicians don't even recognize that they have bias.

This unawareness is referred to as 'implicit bias,' which is any unconsciously held set of associations. It closely resembles stereotyping and it is a product of learned associations and social conditioning[4]. Bias is part of being human, and needs to be recognized and acknowledged without shame or blame. At UMMS we believe that our students enter the medical profession for the right reasons; we want to help them transform the health of communities by having an impact on the health system as well as in the social drivers that make people sick.

A concerted effort to achieve health equity through bias awareness is undoubtedly a new paradigm in medical education. UMMS medical students worked with faculty to ensure that SDH would be laced throughout their training. Thus, in collaboration with the Office of Diversity and Inclusion, faculty and community members, an existing Determinants of Health (DOH) course was enriched and expanded. The purpose of the course is to challenge students to think beyond the parameters of the human body and to consider the many ways in which the external environment affects and influences the health of human beings.

One powerful exercise that this course requires is for students to explore implicit bias on a personal level by taking the Implicit Association Test (IAT). This is a computerized test that aims at measuring the strength of a person's automatic association between mental representations of objects in memory. In other words, it tells you what implicit or unconscious biases you have towards specific populations. This is particularly challenging for medical students because most of them pursue the field of medicine with the best intentions of helping others and tend to believe that they have no biases. They are quickly reminded that bias is a built-in component of being human. Everyone has biases or preferences and most biased acts are not blatant or overt; nevertheless, physicians (as well as other medical personnel) must be aware of the potential influence unconscious bias may have on their relationship to patients.

In an effort to help students confront their biases, the DOH course requires students to write a reflective essay on their experience taking the IAT. A student-driven analysis of these essays identified prominent themes that overall included recognition of bias's inevitability being a product of society, cultural backgrounds, and media. A compelling number of students reflected on the existence of racial bias in medicine and the harm that can be caused by the inability for a health care professional to acknowledge bias. Many also reflected that in order to provide high quality patient care, bias must first be recognized and then dismantled by the physician.

Addressing SDH should not stay in separated silos for medical trainees. UMMS utilizes a community-engaged approach to offer direct, hands-on experiences to students through programs such as the Population Health Clerkship, another requirement of the DOH course. This is a two-week

small group immersion experience that allows the students to come to know well a specific community, how to obtain and analyze data related to a broad range of issues affecting this community's health in addition to being introduced to strategies and programs aimed at improving a community's health.

UMMS also features a graduate program known as the Clinical & Population Health Research Program (CPHR) for MD/PhD students who opt to concentrate in population health work; this work often directly applies to better understanding SDH. Two notable examples include Apurv Soni MD, PhD who has focused his NIH-funded research on gender issues and social structures in India. He found that educational achievement of women in the home in India is directly related to childhood physical and mental development, suggesting the need to focus on empowerment of women in addition to offering traditional programs for nutritional supplementations. Also, Lisa Nobel MD, PhD, who focused her NIH-funded research in SES and neighborhood interactions as they directly relate to risk of myocardial infarctions has found that both neighborhood quality and individual SES interact to predict quality of life after an acute coronary event.

Medical education has begun to include understanding the root causes of health inequities. While it is true that many adverse outcomes have their roots in poor health behavior, these behaviors are often not the patients' fault; we all select from the choices we have, not the ones we wish we had. This is part and parcel of emphasizing the SDH as a basic underpinning of how our approach to patient care is changing and why we are emphasizing the SDH. Including SDH helps ensure that UMMS moves in the direction of equipping physicians and physician-scientists with skills needed to take initiative not only within their own health systems but also to engage in the systematic assessment, identification, and treatment of social determinants of health to improve the health of individuals and populations.

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Graduate Medical Education S.W.O.T Recent Evolution of GME in Central Massachusetts

Marilyn P. Leeds, M.P.H.

Since the early 1990s, medical training institutions and GME programs have had to adjust to dramatic changes in health care and the academic environment by maximizing their Strengths (S), overcoming their Weaknesses (W), and responding to Opportunities (O) and Threats (T). Despite many changes, GME programs in Worcester have continued to thrive, increasing the number of training programs and specialties represented and total number of residents and fellows.

- **CLOSURE AND RESTRUCTURING OF HEALTH CARE FACILITIES**

  Concerns about financial viability under the pressures of new reimbursement systems and managed care led to the consolidation, closure or restructuring of the majority of health care facilities in Worcester over the past three decades, leaving UMass Memorial Medical Center and St. Vincent Hospital as the only acute care hospitals in Worcester training residents and fellows. St. Vincent Hospital has continued to sponsor its own programs while also serving as a training site for several of the Medical School programs.

- **RESTRUCTURING OF THE SINGLE "UMASS MEDICAL CENTER" TO A PARTNERSHIP BETWEEN THE STATE-OWNED MEDICAL SCHOOL AND A PRIVATE NON-PROFIT HOSPITAL**

  Twenty-one years ago, UMass Medical Center formally dissolved to be replaced by two separate institutions, UMass Memorial Health Care and UMass Medical School, with a shared mission to train physicians for the Commonwealth, support research and discovery, and provide quality patient care. The University of Massachusetts Medical School has remained the sponsor of all UMass Memorial GME programs, with clinical training at UMass Memorial Medical Center (which includes the former Memorial and Hahnemann hospital campuses, in addition to the University Campus hospital) and other affiliated teaching hospitals. Medical School sponsorship of GME has ensured that the focus of resident and fellow training remains education and not strictly clinical services.

- **QUALITY AND SAFETY AND THE TRAINING OF RESIDENTS AND FELLOWS**

  Public concerns about quality and safety began to arise nationally with the 1984 Libby Zion case and the resulting Bell Commission's regulations on resident work hours in New York. Although the Accreditation Council for Graduate Medical Education (ACGME) did not move to regulate resident work hours until 2003, Massachusetts teaching hospitals established "provisional guidelines" in 1990 to limit resident work hours consistent with many of the Bell Commission recommendations.

  Other studies and reports including the 1999 Institution of Medicine report, "To Err is Human," led to ACGME "Institutional" and "Common Program Requirements" that stress the importance of resident supervision in the provision of patient care.

- **NEW FOCUS ON COMPETENCIES AND OUTCOMES ASSESSMENT**

  In 2002, the ACGME launched the Outcome Project to identify essential core competencies for physician training. Each specialty was subsequently charged with the establishing milestones and expectations for achievement at each level and successful completion of training. This led to comprehensive change in the use of computer-based performance evaluation and the establishment of Program Evaluation Committees and Clinical Competency Committees. Evaluation of residents, faculty, programs and institutions became more fully integrated.

- **NEXT ACCREDITATION SYSTEM (NAS) – ANNUAL REVIEWS AND SELF STUDY**

  The GME accreditation process now requires programs to address their own strengths, weaknesses, opportunities and threats to improve training. Rather than limiting programs to comply with a rigid training protocol, NAS encourages programs to develop creative solutions to their unique challenges and establish "best practices" for training physicians that can be shared with other programs

  The review process includes both annual evaluation of resident performance and self-assessment of program goal achievement. The previous ACGME review process was frequently viewed by programs as punitive with the risk of citations and possible probation for failure to meet specific ACGME requirements.

Now the ACGME self-study visits are a more collaborative process that not only identify concerns, but also recognize successes and shares ideas for further improvements.

- **THE CLINICAL LEARNING ENVIRONMENT REVIEW (CLER)**

The NAS has also focused more attention on clinical learning environment review. An 18-month cycle of CLER visits assesses institutional factors that impact resident education and quality of patient care. Modeled after Joint Commission site visits to hospitals and health care systems, institutions receive short notice for the multi-day visit by a team of site reviewers who immerse themselves in the institution, meeting with program directors, residents and fellows and conducting rounds. The process provides feedback to the institutions about problems that may require further review and intervention while recognizing best practices and institutional achievement in targeted areas like quality and patient safety.

- **HEALTH CARE DISPARITIES, DIVERSITY, AND PHYSICIAN WELLNESS**

ACGME now encourages GME programs to utilize their role in training physicians to address other important societal and professional concerns. There are new focuses in understanding health care disparities as well as training a more diverse workforce. Most recently, the ACGME has turned attention to physician wellbeing and burnout prevention.

The evolution of health care regulation, financing and technology has had an increasing impact on GME. At the same time, the evolution of graduate medical education in large part driven by the ACGME continues to have an important impact on the quality and accessibility of care in Central Massachusetts. All institutions and providers involved in the training of new physicians must continue to work together to meet ongoing challenges to maximize our strengths and opportunities and ensure continued vibrant graduate medical education in the coming decades.

UMASS MEDICAL SCHOOL

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Well-Intended Duty Hour Regulations, AKA "Another Fine Mess, Ollie"

Joel H. Popkin, MD, MACP

Medical interns and residents who are fatigued are said to make more mistakes, put patients at greater risk and become more depressed and burned out. Well, that's an easy fix: reduce hours and provide "strategic naps." And with the death of Libby Zions in 1984, allegedly due to misdiagnoses by weary residents, the pressures to reform became politically unstoppable.

But was this approach to improving patient care and resident education a drastic oversimplification, coming from an organization which espouses and demands evidence-based medicine – at least from the programs it oversees? Were the Accreditation Council for Graduate Education (ACGME) directives opinion based, in an unthinking prostration to Congress? Would duty hour restrictions improve resident training and patient outcomes? Were life so simple.

To be sure, few would call for a resumption of the old days, when in 1990, the ACGME limited duty hours from a literally mind-numbing free-for-all to a maximum 80-hour-week, including at least one 24-hour period entirely off. In 2003, a proviso decreed a maximum shift length of 24 hours, with up to six additional hours for education and handoffs. In July 2011, intern shifts were restricted to not exceeding 16 hours, and in addition, rules strongly encouraged "strategic napping."[1]

In a literature review before the 16-hour rule implementation, Bolster and Rourke looked at duty hour restriction interventions of shortened shifts and protected time for sleep and reported outcomes on patient care, resident well-being, and resident education.[2] They concluded that restrictions mostly had no impact on patient care or resident wellness, but a negative effect on education.

The ACGME may or may not have heeded what literature was out there. Congress had basically said at this point that if the ACGME didn't fix the problem, the government would[3] So, the rules change went ahead while an administrative representation of ACGME publicly conceded, "We've created a rigid monster without flexibility."[4]

With the 16-hour rule, eye rolling accelerated among many program directors – including me. Collectively we simply asked: What evidence do we have that education, stress and patient safety will improve with the new limitations to hours? Would a compressed day, for example, possibly lead to more stress and less patient safety, by impacting on time for education and peer interactions, decreasing exposure to adequate numbers of patients, undermining patient "ownership" and increasing management errors due to shift-generated handoffs of care?

As a program director in those days I had to shove residents out of the hospital at 5:00 PM, sometimes in the midst of workups, so they could go home, while I (no program director duty restrictions) could work as many hours as needed. Morale? There were terrible moments for all of us, and to protect our program from getting cited, our dedicated residents maybe sometimes, let's say, exaggerated about always leaving on time.

It was at this point that evidence-based studies began coming online to address increasing concerns.

My own group looked at interns in 11 teaching programs in the year before and the year after the 16-hours rules change – about 150 in each group – and asked about their experiences, without reference to rules. The survey queried residents in real time about their service and education-related hours, quality of care, education, and sleepiness. The post-rules group reported fewer hours spent in onsite patient care duties, but total weekly patient care hours onsite and offsite averaged nearly the same. There was little difference in provision of quality care, but significant declines in education were reported.[1]

Many, but not all studies in internal medicine around that time confirmed what we had found. Our pediatric colleagues were faring no better. Auger's group studied resident schedules compliant with the new rules found that in the intervention vs. control (30 hour call) groups, average intern sleep did not differ, even though sleep was increased after duty days for the intervention group.[5] However, education and professionalism may have been lower in the intervention groups, with the feeling that increased workload compression was contributory.

But it was a large study of surgical residents that tipped the scales. The Flexibility In duty hour Requirements for Surgical Trainees Trial (the FIRST Trial) demonstrated no improved patient outcomes with shorter duty hours. The authors concluded that flexible (less restricted) duty hours resulted in "numerous benefits … [in] nearly all aspects of patient safety, continuity of care, surgical training, and professionalism. However, residents reported that less-restrictive duty-hour policies also had a negative effect on time with family and friends, time for extracurricular activities, rest, and health. Importantly, although there was a trend favoring standard policies with respect to outcomes related to perceptions of personal time, residents' satisfaction with overall well-being did not differ significantly between study groups."[6]

In 2017, the ACGME then backpedaled and ruled that interns could again work up to 28-hour shifts. Regarding the 16-hour cap they said, "The Task Force has determined that the hypothesized benefits associated with the changes made to first-year resident scheduled hours in 2011 have not been realized, and the disruption of team-based care and supervisory systems has had a significant negative impact on the professional education of the first-year resident, and effectiveness of care delivery of the team as a whole."[7] Uproar may justly describe the response, mostly from interns. (The 16-hour restrictions never applied to junior or senior residents, and most certainly never applied to attending physicians.)

Following the revamp of the 16-hour rule, a subsequent large study (iCOMPARE) showed no more intern chronic sleep loss or sleepiness in programs with standard duty-hour policies vs. programs with

flexible policies[8] and no differences in patient safety, lengths of stay, or 30 day readmission rates.[9] In this study, however, interns in flexible programs were less satisfied with their educational experience than their standard program peers, while program directors were more satisfied. Interestingly, there was no reported significant difference in the proportion of time that medical interns spent on direct patient care and education between programs with standard vs. more flexible hours. In-training exam scores were the same in both groups.[10]

So, allow me to interject my own interpretations and biases regarding these complexities and then offer a possible mitigation plan for some of today's nearly universal angst.

The controversies basically stem from problems without solutions. For starters, who wouldn't prefer to be under the hospital care of a rested intern? But if that means I am the third shift-of-the-day handoff to a rested intern who knows nothing about my case – I'm not so sure. Am I really "owned" by that covering intern if something goes wrong during the night? So, sleep deprivation is more likely to cause mistakes and saturate our compassion receptors, while multiple handoffs are more likely to cause mistakes and dull our sense of ownership.

Because resident care has become so fragmented, the hits to education are not a surprise. Shortened days have often trashed attending bedside rounds and resident teaching. "Oh, I only saw the patient while covering" never involves a learning experience. A model attending's bedside history taking and communication skills cannot be learned during a board review exercise. And since taking part in the patient's medical course, ownership, and follow-up are what we're all about, how are these voids going to be filled in the real world after graduation? Heaven help us if, based on shift mentality training, practicing docs send their unseen patients out of their offices at 5:00 p.m.

Likewise, directly experiencing a patient's hospital course cannot be book learned, and if missed, likely won't transfer to the practice world. And since hospital courses can't be scheduled, the learning comes when the patient is there, not necessarily between 8:00am and 5:00pm.

Part of brutal hours includes savoring moments to take a breath, read and, yes, converse with colleagues. Wow! Has that gone away? Shifts have led not only to educational gaps, but absences of socialization. The latter is beyond sad. It has taken away the traditions of the fun and stimulation of discussing cases – maybe over what was once an ability to eat lunch – with colleagues happy to share their knowledge, express empathy, and share tales of family and friends. But no question that the last is grievously blunted by absences from family, and there are never upsides to that.

I can see students and residents reading this and seething at the implication of actual advantages to punishing duty hours. In fact, I freely admit to having hated those inconceivable hours, when after a 60-hour stint I often couldn't find my way home. Nor would I (or probably anyone else) ever support a return to those torments. But despite the agony of stress and fatigue in the 70s, "burnout" was not part of the vocabulary. Probably because back then "purpose" flew on a flag amid the craziness. While burnout is another story for another time, training did create invaluable experiences that current rules obviate, and ultimately led to any modicum of success I would find in the next four decades of my career.

In short, the shift mentality has likely contributed flagrantly to the intensifying burnout epidemic among residents and practicing physicians.

Answers are not easy, and maybe there are none. But that won't stop me from proposing this:

Concerted efforts must be made to ease burdensome, numbing work – in large part data entry – that can easily be done by medical assistants. This is long overdue. Duty standards in the old days included no deadening time at the computer (actually included no computers!), so our outrageous hours were by and large devoted to patient care. Those hours were really hard, but at the same time meaningful and purposeful; fatigue differed from burnout. We desperately need a return of bedside rounds and other tangible educational efforts that unbending restrictions of hours have battered. Reasonableness must be substituted for inflexibility, as the shift mentality has decimated learning, bonding, socialization and overall morale.

To this day Libby Zions' tragic case is unclear – even regarding the cause of her death. Fatigue may have been a component, but probably contributed significantly less than a lack of supervision and a future computerized drug interaction system. Yet we have yielded to momentous pressure from the public and our lawmakers to enact naïve sea changes in a system they generally don't understand. If the mound of insults to our profession continues to amass, unions will undoubtedly come our way, and shifts will then become the pitiless standard. Residency program directors, who truly espouse evidence-based medicine, are those directly responsible for creating our next generation of physicians. They must regain custody of their training programs.

Laurel and Hardy's "Another Fine Mess" describes where we are. I only wish our own "fine mess" could bring us as much humor.

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Continuing Medical Education and Lifelong Learning

Tony Izzo, DO

Introduction

Across every discipline, medical knowledge and technology change rapidly year-to-year. Discoveries are made, new treatments are made available to the public, and sometimes practices that were thought safe and effective are proven otherwise by a robust machinery of ongoing clinical research. At the start of a physician's career, an oath is sworn (Hippocratic or otherwise) to provide the best care possible and to avoid doing harm. As the body of knowledge changes and evolves, the standard that we hold ourselves to as physicians includes being at least aware of these changes, but more so being able to care for our patients in line with current evidence-based practices.

Our graduate medical residency programs are closely overseen and regulated by the American College of Graduate Medical Education (ACGME); this provides a standard across the nation for training in each discipline and most sub-specialties. This rigorous oversight breaks down after graduation from residency, but there are a variety of different mechanisms in place for physicians to demonstrate their commitment to lifelong learning in the medical arts and sciences. For many years, Continuing Medical Education (CME) credits were the mainstay of this demonstration: depending on the rules and regulations of one's state medical board, a physician had to attest to earning a certain number of CME credits to earn or renew state licensure. Here in the Commonwealth, that number was 100 credits every two years up until January 1, 2018, when the requirement was lowered to 50 credits every two years[1]. Massachusetts held some of the strictest CME requirements, with most states requiring between 25 - 50 credits per year[2]; Massachusetts, however, had more required specific topics than most states that needed to be covered (including opioid prescribing, end of life care, EMR use, et cetera).

The fact that individual state boards set the bar for CME requirements created a varied landscape for what was required of physicians across our nation, with states like Colorado, Montana and New York currently (as of publication of this article) requiring no CME credits whatsoever, and Oklahoma having differing requirements for MD's and DO's within the same state[2]. Scaling back CME requirements in Massachusetts has occurred largely in tandem with specialty boards moving to continuous Maintenance of Certification (MOC), a topic which has been rife with controversy since its inception in 2012, and has been subject to a variety of edits, pivots and new replacement pilot programs offered by the various medical specialty boards.

Where do CME Credits Come From?

The Accreditation Council for Continuing Medical Education (ACCME) is a national body that accredits large institutions (e.g. state medical societies, medical schools) which in turn can accredit smaller institutions or organizations to provide CME credits to physician learners. The ACCME, and by extension bodies it accredits and those bodies they accredit in turn, has two primary goals: 1) to ensure that participation in CME activities leads to "improvements in clinicians' abilities, performance in practice or patient outcomes," and 2) that accredited CME activities give physicians "a protected space to learn and teach without commercial influence."[3]. These goals were made in line with the American Medical Association (AMA) such that CME activities granted by an accredited body are stated to meet AMA Physician Recognition Award (PRA) credits. The accreditation process itself requires that CME providers can reasonably demonstrate that their CME activities do both of those things. Organizations are asked to show that their CME activities are making a real impact on outcomes, which can certainly be a challenge for the institution requiring accreditation. As part of their Standards for Commercial Support, the ACCME requires that the planning for need for a CME activity (identification of need for the activity, its educational objectives, the people planning it) are made free of commercial interest, and that any relevant financial conflicts of interest are clearly and openly disclosed to learners during the activity itself. Institutions and organizations appoint a Director of Medical Education (DME) who directly oversees that these standards are met for each and every CME activity the institution grants credits for. As the DME for St. Vincent Hospital, I have had to work directly with departments applying for CME credits to change their planned content or layout to ensure no commercial involvement. Once a CME application is approved, whomever is providing the CME includes language on any advertising for the activity and on certificates issued upon completion of the event indicating that the activity meets AMA PRA Category 1 or 2 credit, and for how many hours of either.

What do the Different Categories Mean?

The AMA, and by extension the ACCME and local institutions, award two different types of CME credits, type 1 and type 2. Credits are measured in hours, directly mapping to the number of hours spent on the activity itself. AMA PRA Category 1 Credits apply to educational resources such as live activities (grand rounds, other lectures, workshops, seminars), enduring materials, writing test items, reviewing manuscripts for journals and even internet point-of-care learning (e.g. UptoDate articles)[4]. Some category 1 credits can be claimed directly from the AMA without intermediate accrediting bodies! These can be claimed by physicians for teaching live CME activities, publishing articles, presenting posters, and even for completing MOC requirements. Applications to claim these directly from the AMA are available on their website[4].

Category 2 CME's are typically granted for self-directed activities, and are often things we all do day-to-day without considering them CME activities. These include teaching residents or medical students, reviewing medical literature, peer consultation, research, quality assurance program participation and the like. It is essential that these activities are done free of commercial interest if they are to be

claimed for category 2 CME hours. Different state licensing boards, hospital accrediting bodies and subspeciality societies have differing requirements for proportion of Category 1 versus Category 2 CME credits. In Massachusetts, the 50 CME credits required per licensing cycle can be of either category[1].

Who Can Claim AMA PRA CME's?

Physicians of any discipline or subspecialty can claim AMA PRA CME credits. Physician assistants can also claim AMA PRA CME credits for maintaining certification through the National Commission on Certification of Physician Assistants (NCCPA). Nurse Practitioners in Massachusetts are more than welcome to attend CME activities for learning, development and personal enrichment, but need to demonstrate clinical hours and continuing education (CE) contact hours for their certification, which are separate and different from AMA PRA CME credits.[5]

What's the Difference Between CME and MOC?

Where CME credits are reported to state licensing boards, medical staff credentialing offices, professional societies and the like, continuous Maintenance of Certification (cMOC) activities are reported directly to national specialty boards to maintain board-certified status in a specialty or subspecialty. For example, an adult primary care physician in Massachusetts log their CME credits for the Board of Registration in Medicine (BORIM), but attest to cMOC activities for the American Board of Internal Medicine (ABIM). One can see how cumbersome and repetitive this would quickly become.

For certain speciality boards (Anesthesiology, Internal Medicine, Ophthalmology, Otolaryngology - Head and Neck surgery, Pediatrics and Pathology), however, the ACCME has partnered with these boards to allow CME credits to be allowed to be claimed for cMOC credits as well, streamlining and simplifying the process of documenting lifelong learning for any and all of these organizations. The ACCME has a handy website, http://www.cmefinder.org/, that allows physicians to search for activities that count for both CME and cMOC.

The Importance of CME in 2019

With the wide variety of CME activities offered through locally accredited institutions and organizations, as well as directly claimed from the AMA, CME is a widely accessible tool for life-long learning, practice improvement and professional development. Even though Massachusetts has loosened the requirements for CME credits per year (and some states don't require CME at all!), specialty professional societies and other accrediting bodies still require CME for institutional accreditation. For our hospital's sleep center to be accredited, for example, each faculty member must demonstrate 30 sleep-medicine related CME's per three-year cycle[6]. Similar requirements exist for radiology departments, bariatrics programs and even within the Joint Commission standards, as well[7].

Beyond requirements set forth by various accrediting bodies, keeping current on dynamic changes in current medical practice is essential to providing good care to patients, which is our primary focus as physicians. Being able to implement that in an environment that is conducive to learning and free from commercial interests is the goal of the ACCME, and CME activities approved by them via institutional DME's assures that this goal is met.

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The Transformation of Nursing Education: Meeting the Changing Needs of Society

Maureen E. Wassef, PhD, RN

The publication of "To err is human" served as the impetus for highlighting the need for curriculum revision and ultimately setting the stage for the transformation of nursing education in the 21st century. The introduction to this publication states, "Health care in the United States is not as safe as it should be—and can be. At least 44,000 people and perhaps as many as 98,000 people die in hospitals each year because of medical errors that could have been prevented…"[1] It should also be noted that as we discuss some of the pivotal changes in nursing education, many are currently being integrated in the educational curriculums of all healthcare programs.

Changes in nursing education, especially in the last 20 years have been in direct response to both the healthcare needs of the general population as well as the state of the healthcare delivery system in our society. As such, the publication of the IOM, to Err is human expanded the focus of nursing program outcomes from not only the knowledge and behaviors of graduates, but more importantly how these professionals directly impact quality and safety in patient care.

With the IOM's initial goal of reducing medical errors over five years, a series of subsequent papers were published by national nursing organizations highlighting strategies and core competencies in nursing to successfully navigate the healthcare arena. A core team of nurse executives and academics from Massachusetts led this initiative, impacting educational practices nationwide with the creation of the Nurse of the Future Competencies. This vision focused on the premise that education and practice partnerships are key to effective program design and implementation in a time of decreasing supply and increasing demands on the nursing profession.[2]

The Massachusetts Nurse of the Future Nursing Core Competencies define the knowledge, attitude and skills required as the minimal expectations for initial nursing practice following completion of a prelicensure professional nursing education program. These include systems-based practice, informatics and technology, communication, teamwork and collaboration, safety, quality improvement, evidence-based practice, patient centered care professionalism and leadership. Their work integrates not only the IOM's recommended core competencies, but the Quality and Safety Education for Nurses (QSEN) competencies outlined by the Association of American Colleges of Nursing (AACN). [3]

Many of the transformations in nursing education have been directly linked to not only these documents, but also the official white paper examining the future of nursing.[4] It encourages nurses to achieve higher levels of education and training through an improved education system that promotes seamless academic progression and the need to function as part of the healthcare team in redesigning care in our country.

The link between the educational preparation of hospital nurses and patient mortality was also brought to the forefront with the publication by Aiken and colleagues which concluded in hospitals with higher proportions of nurses educated at the baccalaureate level or higher, surgical patients experienced lower mortality and failure to rescue rates.[5] Therefore, it was imperative to achieve higher levels of education for not only the advanced practice role but the role of the registered nurse. A graduate degree as an advanced generalist has subsequently been created and is now being offered to meet this educational need. Supports in the educational system were also required to facilitate the seamless transition in nursing education. Programs such as RN to BSN programs increased in number with additional options for further matriculation into both masters and doctoral curriculums. The flexibility of online education allowed the individual with real life responsibilities to take advantage of these educational offering. The pedagogy behind online learning is consistent with adult learning principles where the individual can be self-directed and an active partner in their educational learning.

The proliferation of the accelerated nursing program was due to numerous factors. With the increased age of our baby boomer population, the need for the new nurses increases each year. AACN stated that coupled with shifts in the economy, job outlooks and the desire of many adults to make a post-September 11th difference in their work has increased a renewed interest in the nursing profession among second degree students.[6] Accelerated programs can offer a degree in nursing at the baccalaureate, masters or doctoral level.

The role of the advanced practice nurse has also been directly affected by the ever-changing healthcare landscape. As the healthcare arena struggled with an aging population who possess numerous health care challenges, this set the stage for a new educational paradigm. This factor along with the increasing expansion of core competencies required of healthcare providers led to the decision to confer a degree that reflected the current state of advanced nursing practice. AACN's Essentials of Doctoral Education for Advanced Nursing Practice (2006) identifies the objective of the Doctorate in Nursing Practice (DNP) degree to prepare nurse leaders at the highest level of nursing practice to improve patient outcomes and translate research into practice.[7]

One of the more insightful initiatives in healthcare education encourages the need for inter-professional opportunities. According to The Joint Commission, faulty communication continues to be a root cause of many patient errors. As such, the Interprofessional educational competencies were crafted by the major accrediting bodies to promote and highlight the necessity of a collaborative healthcare team in

delivering quality patient care. Integration of interprofessional activities either in a simulation setting or clinical practicums are now the standard to promote a team approach in patient care.[8,9] The gold standard for evaluating our educational preparation has been and always will be the quality of care as well as the quality of human caring. It is for this reason, that nursing continually reflects on not only what are the needs of society, but more importantly how can we best address health outcomes. There have been many changes within nursing education, but there has always been one constant. The core foundation of nursing practice will remain embedded in both the art and the sciences as we provide care for individuals, families, communities and beyond.

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Interprofessional Education: Learning Together to Provide Care Together

Karyn Sullivan, PharmD, MPH, RPh

Health care in the United States continues to become more complex creating the need for different models of health care delivery. Models that include a team-based approach involving many professions with more attention placed on prevention and high quality, cost-effective care.[1] This shift has resulted in a greater emphasis on interprofessional learning and collaborative practice in health professions higher education.[2] Interprofessional education (IPE) is defined as occurring "when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes".[3] It is important to note that the word "students" in the definition may be replaced by "learners" since all health care practitioners may be referred to as interprofessional learners.1 IPE is now an accreditation requirement for most health profession degree programs. While some accreditation standards are more specific with IPE requirements than others, the common goal is to prepare health professions students to work effectively in teams to provide the best possible care for patients. One might wonder if this is truly a novel concept. Hasn't this been the goal of health profession education for years? It certainly has been, but the importance of teamwork has been elevated and the methods used for "teaching" these concepts have evolved.

IPE involves achievement of the four Interprofessional Education Collaborative core competencies[4]:

Values and Ethics for Interprofessional Practice:
Work with individuals of other professions to maintain a climate of mutual respect and shared values.

Roles/Responsibilities:
Use the knowledge of one's own role and those of other professions to appropriately assess and address the health care needs of patients and to promote and advance the health of populations.

Interprofessional Communication:
Communicate with patients, families, communities and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease.

Teams and Teamwork:
Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs that are safe, timely, efficient, effective and equitable.

Historically, students have learned about many of these core competency concepts in their own professional silos (e.g., medical students learning with medical students, nursing students learning with nursing students, etc.), but often without the chance to practice or apply them until placed on clinical rotations or on the job when newly employed. Unquestionably, all health care professions students learn about the importance of effective communication. However, the various professions learn to communicate very differently. For example, nurses are usually instructed to be broad and narrative in their descriptions of patient situations as opposed to physicians who learn to be very concise with their communications about patients.[5] IPE provides students with the opportunity to learn and apply these skills with other future members of the health care team before they are out in practice together allowing for these differences to be recognized. This may lead to adjustments in communication style or the use of standardized communication tools to promote efficient delivery of critical patient information.

IPE promotes active learning among students from different professions and arises from the interprofessional interaction of those students.[6] It is a planned and intentional active learning initiative – active meaning that students are learning with each other, from each other, and/or about each other. The quality of the IPE depends largely on the quality of the interaction among the students. Therefore, IPE is not when a pharmacy student and a nursing student listen to the same lecture together or when they have electronic access to the same learning materials. Similarly, IPE does not occur when a pharmacy professor teaches a pharmacology class for medical students. IPE does occur when a learning session involves students from at least two or more professions and is deliberately designed to allow for interprofessional communication and collaboration among the participants. This can be in the form of small group discussion questions, joint problem solving of a patient case, simulation activities (e.g., emergency preparedness drills or assessment using mannequins or standardized patients), or team assessment of a patient in a student-run clinic. These are just a few examples, but the opportunity for IPE is everywhere and may occur in both the classroom and practice settings. IPE is optimized when integrated throughout the curriculum longitudinally, topics are relevant to all professions involved, level of student learner is well-balanced and facilitators receive appropriate preparation.[1]

Incorporation of IPE in health professions curricula has evolved through the years and still varies tremendously across schools with regard to resources allocated and extent of IPE offered. Some programs may offer a few IPE activities while others have interprofessional courses occurring over multiple semesters. Benefits for students from involvement with IPE have been documented as preparation for real-life interprofessional work-based problems, development of understanding and respect for other professional roles, and further strengthening of one's own professional identity.[7] Existing evidence suggests that IPE can positively impact students (attitudes, knowledge, skills, and collaborative competencies) as well as professional practice and clinical outcomes.[8,9,10]

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From Textbooks to Tantrums: A Medical School Education While Raising Children

Alex Newbury, MD

It's hard to believe that I've finally arrived at the end of my undergraduate and graduate education. Running the numbers puts me at: four years of college, two years of a master's degree in biomedical science, and five years of medical school all adding up to Grade 23. And even more sobering than the fact that I've spent more than two-thirds of my life in school is the shocking reality that I have two incredible little boys under two, Charlie our 22-month-old and Sam our 5-month-old. Full disclosure, I'm actually composing this with Sam bouncing happily next to me and Charlie gleefully running around our playroom shouting "beep beep!!" at every car that he owns, which is close to 200. I mention this moment not because I am one of those parents that likes to wax on about how special their kids are (I am and they are), but more importantly because it is the type of scene that I had the sublime opportunity to experience as a parent during my time in medical school. However, before I get into that, let me rewind a bit.

Traditionally, the MD path takes four years to complete, but I took an extra fifth year to help raise my boys while my wife went back to work as a nurse practitioner. This puts me in the somewhat unique, but increasingly more popular, position of graduating with a different class than when I entered medical school. While it does delay your career, the extra year affords students many opportunities to get their applications ready for applying to residency. Some of us chose to do research, take additional coursework and pursue another degree, or, as in my case, raise children. Each year, students make this decision to take additional time before graduating and the trend is not unique to UMass; more and more students across the country are choosing to extend, with up to two-thirds of the student body making this decision at some schools (1). This stands in stark contrast with the mindset of even 15-20 years ago when taking additional years of medical school was far less common.

While many students who take a fifth year typically conduct research in the field that they are applying into, I am part of a wonderful coterie of 5th year parents who chose to spend their extra year to raise their kids. We reminisce about all sorts of memories from our leave, like that day our kid tried solids for the first time, or when one of them ran headfirst into their sibling after spinning in a circle for too long, or that enormous hug we got when we showed up at daycare a little earlier than usual. Our parent conversations are filled with charming moments such as these and further solidify our decision to put our careers on hold for just slightly longer.

However, as with many parent catch-up sessions, we often veered into a discussion about what it is like to be a parent while also being a medical student. Things we discussed included how to address the extra fifth year when on the interview trail, how to remain competitive among the rest of the residency candidates, and the best way to ask to be sent home a little early from the wards because our daycare closes at 6. Even further, pregnant medical students have an entirely different set of needs and concerns, such as getting excused from the classroom or the wards for prenatal appointments. All of these unique scenarios present true challenges to the student-parent, especially when performance and grades are constantly on the line.

In an effort to address as many of these challenges as possible, several of our student-parents worked directly with our Associate Dean for Student Affairs, Dr. Sonia Chimienti, to identify areas where we could make the greatest impact for our students. This group is working on a handbook that is designed to tackle the grey areas of being a student-parent. It specifically spells out guidelines for our student-parents, such as how to take a leave of absence and how to address time off on interviews, while also providing resources for starting a family during medical school, such as daycare options and student-led interest groups. Speaking from experience, these are the types of services that new parents desperately need and their availability highlights how strong UMass is as a medical school.

When our student body was polled about their thoughts on starting a family in medical school, the responses ranged from "[Having children] gave me purpose outside of medicine and taught me to value what was most important," to "It wasn't easy but it was worth it" to the more candid, "Why would anyone do this to themselves on purpose?" I would be lying if I said I haven't had all of these thoughts during one time or another as a relatively new father. That said, these conversations are extremely valuable for the field of medical education. As the average age of our medical students continues to increase each year and with a higher proportion of women entering medicine than ever before, medical education needs to evolve to include the growing needs of our student-parents. Fortunately, at UMass we are extremely grateful to have proactive student leaders and education mentors to help all our students achieve the goals they aim for, both career and personal. For me, raising my two boys has been absolutely surreal, and it will be a true challenge to begin my residency training in a few short weeks, but what's most important is that my time off has given me entirely new perspectives on what to prioritize, what to stress over (and more importantly what not to stress over), and how to be a better husband/student/dad.

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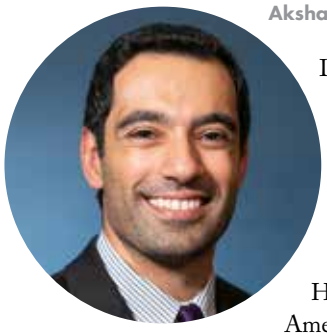
Dr. Alex Newbury is a recent UMass graduate and a first-year intern at Newton-Wellesley Hospital. He will be continuing his training in Diagnostic Radiology at UMass the following year. When he's not at work, he enjoys spending his time chasing his two boys around Grafton with his wife and puppy.

A Provider's Guide to Dietary Supplements: The Good, the Bad, and the Downright Ugly

Akshay Kapoor, MSPH



Dietary supplements pose one of the greatest consumer risks to our patients. Yet, it is a topic providers seldom discuss in the exam room ; long relegated as an 'extra' question in the already burdensome checklist of a typical office visit. However, with over 200 million (2018) Americans estimated to be using dietary supplements annually this conversation could not be more crucial to patient safety and health. This field of vitamins, minerals, extracts, and combinations is marketed as a safe and healthy alternative to pharmaceutical intervention. In many instances that can be true. Who would argue against the use of vitamin D in newborns, folate in pregnancy, or calcium supplementation in those at risk for osteoporosis? However, the current general perception by providers of the benign nature of these products is in sharp contrast to the reality of the expanding dangerous market share of what is considered under the umbrella of 'dietary supplements'.

I am no opponent of dietary supplements; and in fact, have repeatedly argued that this $50 billion-dollar industry is full of generally respectable and well-intentioned players who create an essential set of products . However, contrary to popular belief, dietary supplements are largely not regulated by the FDA . The meat in your grocery store isle, or the ibuprofen you might take for a backache is much more tightly controlled than the vitamin c found in every pharmacy throughout the city. The purposeful Congressional blockage of tighter regulation with the passage of Dietary Supplement Health and Education Act of 1994 has led to a 'wild west' in the supplement market where anyone in their garage can create a product and sell it directly to consumers. Just turn on the news or pop over to the FDA website to see dozens of products linked with dangerous and/or illegal, adulterated supplements found daily . Manufacturer's aren't required to have any quality control, less than half of one percent are inspected annually , and products are not required to be registered or sent for prior approval. While many have argued about the degree to which we must police this market; hardly anyone can argue about the safety and dangerous reputation prescribed to this commonly consumed good.

For medical professionals, this poses an extremely dangerous proposition. It is benign if a patient ingests a ginseng tablet that doesn't contain anything but sawdust. But does the same hold true when a 65-year-old man on beta blockers takes an erectile dysfunction supplement that is laced with sildenafil, as has been found many times? The dangers of this unregulated market are real; and physicians must take them seriously until a solution is implemented.

So, what can we do? While many institutions such as the U.S. military have banned the use of certain types of supplements (i.e. pre-workout's which commonly have shown to contain synthetic amphetamines), this is not a suitable option in our community. I therefore proposed three things:

First, we must ask our patients about the use of dietary supplements. In a community such as Worcester, with a higher percentage of college students, athletes and immigrant populations who might prefer non-traditional western medicine, one could infer that the use of dietary supplements is greater and thus the risk looms larger than the national average. A simple screening question of, 'do you use any health or nutrition products not prescribed by a doctor', would unearth the vast majority of hazardous use. It is time providers discuss this crucial question with their patients and not simply leave that portion of the EMR empty.

Second, we must advise patients on dietary supplements and educate them on what they may or may not contain. The majority of providers and patients believe that dietary supplements are safe and have been evaluated by FDA. That is simply not true as FDA does not approve products for sale, only has retroactive ability to stop the sale of dangerous products, and is extremely understaffed to complete its regulatory mission. It is unlikely, and frankly unreasonable, in my experience to believe most patients will completely stop taking their dietary supplements. However, every effort should be made to educate them on the risks and benefits as we would with any other medical intervention. Surveying what condition they are aiming to treat and requesting they bring in the product next visit may prove more beneficial in establishing trust and satisfaction in care.

Third, we must be an advocate for safer product consumption and how to choose which supplements to buy if they intend on taking them. Until a national solution to this problem is established one easy avenue providers can employ is telling patients to only buy supplements with a USP seal of approval. This ensures that the maker of this product has met laboratory grade standards after sending it for individual sampling and analysis, giving consumers certainty they are ingesting what is stated on the bottle.

The danger in the use of dietary supplements for our patients is very real. However, providers are in a unique position to ask about, advise on, and advocate for the proper use and safety of these products, and must incorporate them into their standard daily practice.

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Legal Consult: When is a Discharge not a Discharge

Peter J. Martin, Esq

When a patient does not regain his liberty, according to the Massachusetts Supreme Judicial Court in a ruling issued in late May of this year in the case Pembroke Hospital vs. D.L. The case addresses the situation of an involuntarily committed mental health patient at Pembroke Hospital. The hospital's petition for continued commitment was denied by a judge. Instead of discharging the patient, the Hospital transported him without his permission to South Shore Hospital where another physician evaluated him. Based on that evaluation, South Shore Hospital applied for involuntary commitment of the patient at Pembroke Hospital. The second involuntary commitment petition filed by Pembroke Hospital was granted, and the patient was committed there for up to six months. The patient moved to dismiss this second petition and then appealed the denial of his motion; the SJC then agreed to a direct appellate review of the matter.

D.L. was originally committed to Pembroke Hospital in mid-December, 2015 because of suicidal statements. Pembroke claimed that D.L. had been unresponsive, minimally cooperative and selectively mute during his stay; had not eaten or drunk anything for several days; and would die within two weeks without intervention. At the commitment hearing, the physician under cross-examination agreed that D.L. had been eating and drinking when hungry. When the commitment petition was denied, Hospital staff tried but failed to locate a family member willing to house D.L. The Hospital then determined that because D.L. was psychotic and his family would not take him in, he needed "continued inpatient psychiatric care for his own safety in the context of worsening psychosis." D.L. was not permitted to leave the hospital but instead transported to South Shore Hospital for the second evaluation. He was returned to Pembroke Hospital in the early morning of December 31, 2015.

Pembroke Hospital claimed that it did indeed discharge D.L. but simultaneously arranged for his transport to South Shore Hospital for a psychiatric examination. Because the relevant statute does not define "discharge," the SJC took the standard step of assessing what the Legislature may have meant when it used that word by examining the work's usual and accepted meaning. The relevant dictionary definition was "to set at liberty: release from confinement, custody or care." Based on that analysis, the SJC stated that a patient is discharged form a facility "only when that individual is set at liberty from involuntary restraint, and not when released from care as happened here." Ceasing care while retaining unwanted custody is no "discharge" under the statute, so Pembroke Hospital's failure to discharge D.L. once the first commitment petition was denied was ruled a violation of the involuntary commitment statute.

From Pembroke Hospital's perspective, its actions were justified to avoid a wintertime discharge to the sidewalk because D.L.'s family was not willing to take him in and the Hospital determined he would be unsafe in a homeless shelter. The Hospital cited to certain Department of Mental Health regulations governing licensed facilities that state a "facility shall make every effort to avoid discharge to a shelter or the street." Although the SJC stated its belief that Pembroke Hospital acted in good faith, the Court still criticized the decision to involuntarily restrain D.L., because he did not have a place to live upon his release from the hospital. The SJC cited to the same regulation, which says the facility is to offer the discharged patient alternative options and document a refusal of such options in the medical record. It concluded that "the fact the D.L. did not have a place to live upon his release was not a proper ground for Pembroke to involuntarily restrain him."

Could Pembroke Hospital have discharged D.L. to the sidewalk and immediately arranged for an authorized person, such as a local police officer, to detain him and file a second involuntary commitment petition? The SJC opinion suggests that this work-around would not be available. Although the statute "imposes neither time nor distance prerequisites between admissions," an involuntary readmission "must be based on new information that was unavailable to the judge during the previous petition hearing." In this case, no new information was available to support a second attempt at involuntary commitment. Consequently, Pembroke Hospital's application to South Shore Hospital for a subsequent admission and commitment was an abuse of the statute.

It is a health care commonplace that homelessness as a social determinant of health is of particular importance to those with mental health issues. It is a legal commonplace that all patients, including psychiatric patients have a fundamental and significant liberty interest that is curtailed by an involuntary commitment. In this decision, the SJC has strongly ruled in favor of patients' liberty interests in a way that further constrains health care providers' ability to protect patients from themselves and an unsafe environment. Providers are left with the commonplace dilemma of permitting patients to make choices the providers know to be hazardous to the patient's health, and with few options other than to seek an emergency guardianship, or to advocate for more resources for the care of the homeless mentally ill.

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Center Tree Bar & Grill:
Creative Cuisine

Bernie Whitmore

Center Tree Bar & Grill
249 Main Street, Rutland
Phone: (774) 234-0234
www.centertreebarandgrill.com

Every few months, we take a timeout from Worcester dining and venture into the surrounding towns. Almost invariably I'm surprised at what we find; scenes where the locals are enjoying establishments which would rank among the hottest restaurants of Worcester.

Now, Rutland has revealed their best-kept dining secret: Center Tree Bar and Grill. Located in the town's center in a commercial building set perpendicular to Route 122A, it's easy to spot just as you're passing by it.

Once inside, we found a spacious room with rows of booths, high-top tables and a large bar. Always a good sign, on this mid-weeknight it was close to filled. Shannon, our server, needed a couple encounters with us before warming up to my companion and I, but once we became at ease with each other I came to appreciate her understated humor and helpful recommendations.

Center Tree's appetizer list contains some standard items and a few unusual combinations. Consider their Totchos, a merging of the perpetually-popular "tater tots with cheese sauce, chicken and other toppings". I considered ordering Lobster Arancini, but in the end we decided on Fried Calamari and Shrimp. Served on a leaf-shaped white dish, my first impression was that the portion seemed less than generous. But this was a dish that kept on giving.

Tightly packed medium-sized shrimp fried golden brown clung to calamari rings and tangles of tentacles, all drizzled with a creamy lemon aioli. As we began to stab pieces of seafood I realized how densely packed it all was. Then, we hit the contrasting flavor agents. Garlic confit: tender cloves of garlic whose flavor had been tamed to creamy and mild. Cherry tomatoes: flecked with aromatic herbs, their natural sugars concentrated by a charring from an encounter with the hot grill.

It was with some trepidation that I arrived at my entrée decision, Korean Short Rib Tacos. After all, how interesting could a taco be? I'd soon find out.

The Center Tree serves three soft corn tortillas packed with strips of tender beef, crunchy red cabbage slaw and pickled red onion laced with razor-thin slices of hot pepper that set the dish ablaze with tasty sparks of flavor. Buttressing all of this is their red chili paste (gochujang) aioli that melded with the other ingredients and soaked the tacos with flavor.

Shannon had asked if I wanted my tacos with fries, onion rings, or both. Of course, I chose both. They arrived as a huge mound of deep-golden goodness taking an entire side of the dish. Both were crispy-thin and creamy on the inside. But the rings were more like onion strings, one of our all-time favorites.

How interesting are tacos? When you blend the deep, honest, beefy richness of short ribs with sharp flavor and textural contrasts, the answer is, "Who cares? That one was awesome and I still have two of them on my dish!"

My glass of Road 2 Ruin Double IPA had plenty of hoppy bitter assertiveness to make it the Craft Draft Match to the tacos. R2R is brewed by Two Roads Brewing Company in Stratford, Connecticut.

So far the chef had proven his knack for innovating some of the basics of informal dining. With my companion's entrée, Scallop Risotto, things got seriously interesting.

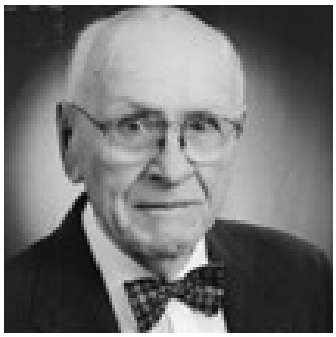
Once placed on the table, our first reaction was to take pictures. Set in a pool of sauce, a center row of deeply seared sea scallops was lined by parallel rows of charred cherry tomatoes all set over a bed of creamy smashed green spring peas blended with (we'd soon discover) orzo. Sprinkled about were chunks of crunchy pan-fried pancetta. Green, white and red; it looked like the Italian flag.

Technically, by using orzo instead of rice, I believe this dish would be more aptly titled Scallop Risoni, but that's quibbling. Let's get to the flavor.

My companion reported the scallops as perfectly braised, tender and fresh. The tomato or two I snagged literally popped with rich juices. The bright-green spring pea - orzo combination provided mild flavor and a creamy textural counterpoint. But that sauce! Its smooth flavor suggested several aromatic herbs, but we just couldn't decide which. And then the chef stopped by with the answer: tarragon. Of course! One of my favorite herbs and, alas, one that's rarely encountered.

Our dining experience at the Center Tree was memorable and within days I'd recommended them to friends who are always on the lookout for new dining options. However, the real news could be another entrée on their menu, Chicken & Waffles. Word is, this is the same version I've been talking about for a couple years transported to Rutland.

In Memoriam- John A. Riordan, MD



Dr. John A. Riordan, M.D. passed away in late January 2019. He is survived by his wife of 60 years, Rosemary, and eight children. He was not a complicated man, the basic tenets of his life were faith, family, medicine and community; he was also a member of the "Greatest Generation" and was influenced by both the Great Depression and WWII. The combination of these tenets and events made him the person known by family, friends and patients alike.

He held an unwavering faith in the Catholic Church and balanced this easily with his scientific nature. It was pervasive to all parts of his life.

Family time included eating dinner together nightly, Sundays also included our grandmother. We ate later than most of our friends and they knew not to call the house during dinner. As a child, we spent a great deal of time with cousins and other family and continue to, even into our fifties and sixties. He trained us to care for family members, assisting them in any way but especially during illness and end of life care.

Our late dinner hour was due to his work. He was always running late at the office where he spent as much time as necessary with each patient regardless of his printed schedule. We run into his former patients all the time and they stop us to tell stories about how well-cared for they were and speak warmly of him. He loved working with children and had a passion for hematology.

His communities emerged from his selfless dedication to others. Following his retirement at seventy, he began to volunteer in a number of free medical clinics in Worcester and the greater area only ending with his inability to drive due to macular degeneration. He supported family, friends, college alumni and HC Sodality, the Greendale YMCA, the Worcester Diocese and countless other people and organizations with his time, free medical care, financial support, wise advice and volunteer services throughout all of his adult life.

The Depression influenced his determination to be able to support himself and his family during the best and worst of times. He planned for the future meticulously and educated himself to understand how to plan for retirement and to take care of my mother should he predecease her.

His years working in the Quartermaster's Office on a Navy transport ship during World War II introduced him to navigation and began a life-long interest in the stars, astronomy and maps. We had two drawers in the kitchen dedicated to maps plus there was always an Atlas on hand for geography and travel discussions, which were many. The drawer was full of country and city maps from their travels.

Both my parents loved to travel and made their way to the former communist Soviet Union, Syria, Jerusalem, the UK and Ireland, Spain, Portugal, France, Greece, Yugoslavia and across the United States.

He lived for 93+ years and truly had a wonderful life. He will be greatly missed!

Respectfully,
Anne Riordan Michelson

In Memoriam- David H. Spodick, MD, DSc, FACC, MACP

A giant as a clinician, a legendary academician and researcher, the consummate pedagogue and a father figure to generations of cardiologists, Dr. David Spodick leaves behind a void that cannot be filled.

David H. Spodick was born in Hartford, Connecticut, in 1927. Ten years later, his family moved to Kingston, New York, where he graduated early from Kingston High School in 1944. Twenty years before the civil rights movement, he delivered as class orator a talk entitled, "No Second-Class Citizens," in which he endorsed equality for African Americans. He then attended Bard College, completing three academic years in two calendar years. While in college, Dr. Spodick was the official parliamentarian and was moderator of the joint student faculty government council. Thirty years later, Bard awarded him a Doctorate in Science for his work in the field of noninvasive clinical cardiology and physiology.

After graduating from NY Medical College in 1950, he interned at St. Francis Hospital in Hartford. Dr. Spodick moved to Boston for his residency training, first at Beth Israel Hospital, then at New England Medical Center. His two years at the New England Medical Center were interrupted by two years in the Air Force. Although Dr. Spodick became interested in the emerging subspecialty of cardiology during his residency, his career started in earnest when he became David Littman's first fellow in cardiology in 1956. After participating as a special post-doctoral fellow, sponsored by the National Heart Institute at the West Roxbury Veterans Administration Hospital, he moved to the Lemuel Shattuck Hospital, where he began an illustrious academic career in Boston spanning 19 years. During that tenure he had academic appointments at all three of the Boston medical schools. His contributions to that community also included his reading all of the Boston Evening Clinic's electrocardiograms without remuneration for 15 years. In 1976, with the support of colleagues and friends, David Spodick accepted the position of Chief of Cardiology at Saint Vincent Hospital, where he joined then Chief of Medicine Gilbert Levinson, an established cardiovascular researcher. Dr. Spodick remained here since, until his retirement, as a skilled practitioner and revered educator.

Dr. Spodick was the recipient of innumerable accolades

and awards, among them, the Brower Traveling Scholar of the American College of Physicians at St. George's Hospital in London (1964), the Burger Award of the European Society of Noninvasive Cardiovascular Dynamics (1998), the Melvin L. Marcus Memorial Award for his distinguished contribution as a gifted teacher in cardiology by the International Academy of Cardiology at the 3rd World Congress of Heart Disease (2003), to name but a few. However, Dr. Spodick's most important praise, according to him, came from his cardiovascular fellows, who recognized him for decades with teaching awards on an almost yearly basis.

Drs. Richard L. Bishop and Gordon M. Saperia (both former Chiefs of the Division of Cardiology) published a profile in Clinical Cardiology and sum up Dr. David Spodick's career in this way: "David's greatest contribution to our profession may have been his call to all of us to remain intellectually honest, to adhere to the scientific method, and to interpret data properly. His strong belief in the randomized controlled trial and his urging the scientific community to use this methodology faithfully has no doubt led to improvement in patient care. If there were one image that could portray his happiest professional moment(s), it would be that of him sitting in his small office huddled with a fellow or resident in intense conversation over a research proposal. He was loved and respected by the medical community, both physicians and non-physicians alike."

Dr. Spodick's name is known in cardiology circles all over the world, and he is considered one of the world's experts in electrocardiography and diseases of the pericardium. He authored over 650 publications (when we were still tracking them) and may well be the most published researcher ever. Both the Department of Medicine and the Division of Cardiovascular Medicine have instituted a research symposium named in his honor. At one such symposium a few years ago, Eugene Braunwald, one of the fathers of cardiology, was an invited speaker and when getting to the podium, remarked, "What can I say about the pericardium when David Spodick is here".

Dr. Spodick's innumerable mentees both in cardiology and internal medicine will be forever grateful for their education and training under his tutelage. His legacy will live on through his extraordinary contributions.

Respectfully,
George M. Abraham, MD, MPH, FACP, FIDSA
Chief, Department of Medicine, St. Vincent Hospital

WDMS Annual Business Meeting
Wednesday, April 10, 2019

Dr. Philip J. Bolduc
WDMS/MMS 2019 Community
Clinician of the Year Award Recipient

Dr. Valerie Pietry, Dr. Philip J. Bolduc and Dr. Sahdev Passey

Dr. Stuart Weisberger,
WDMS 25 Year Annivesary Member
Dr. Sahdev Passey, President of WDMS

Congratulations to the 2019 WDMS Anniversary Members

50 Year Members
Robert L. Moore, Jr., MD
Stanley R. Sakowitz, MD

25 Year Membrer
David R. Cave, MD
George P. Nasinnyk, MD
Richard I. Popovic, MD
Elizabeth Roaf, MD
Stuart A. Weisberger, MD

Dr. Elizabeth Roaf,
WDMS 25 Year Annivesary Member
Dr. Sahdev Passey, President of WDMS

Dr. Charles A. Steinberg
Guest Speaker
"How a Dentist Got Into Baseball, Where Did I go Right"

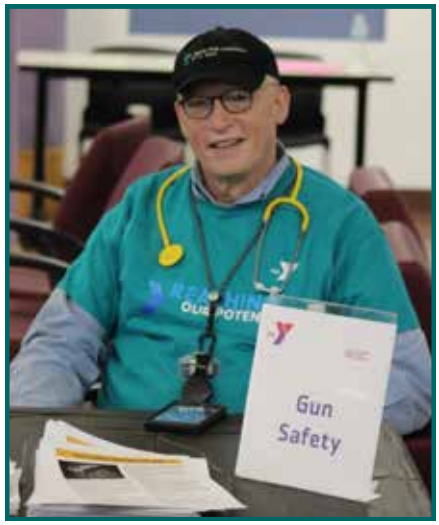
Edward Augustus, City Manager of Worcester, MA
Dr. Charles A. Steinberg, Guest Speaker

Annual Legislative Breakfast
Friday, April 12, 2019

DOC 'N THE SHOP Health Fair
Saturday, April 27, 2019

The health fair provided free screenings for hypertension, diabetes, oral health, and HIV in addition to education on breast cancer, nutrition and much more.

Rebecca Ukaegbu and
Maureen Ogamba-Alphonso
Event Coordinators



Dr. Michael Hirsh
WDMS Public Health Committee, Chair

Many thanks to all the volunteers in making this the health fair a success.

WDMS Members honed at the Massachusetts Medical Society Annual Business Meeting, Seaport Hotel, Boston May 2-4, 2019

Lynda Young, MD and Sahdev Passey, MD

Dr. Young was honored for two awards:
The Henry Ingersoll Bowditch Award for Excellence in Public Health *and*
The Woman Physician Leadership Award

Dr. Passey was honored by receiving the Senior Volunteer Physician of the Year Award

Master of Ceremonies, Alain Chaoui, MD, MMS Outgoing President

MMS Scholars Award Recipients:
UMass Medical Student Members:
Ms. Laurel Banach, Ms. Brittany Berk,
Ms. Stephanie Clegg and Ms. Kristen Hartwick

The MMS/WDMS
Community Physician of the Year:
Philip J. Bolduc, MD

MMS Delegate Milestones:
For 25 years of service:
Edward L. Amaral, MD and Lynda M. Young, MD

For 10 years of service:
Abhijit Roychowdhury, MD and Lynda Young, MD

Artwork for the MMS Annual Art Show submitted by:

Edward Amaral, MD
Glenn Meltzer, MD
Stuart Weisberger, MD

Worcester District Medical Society
Women's Caucus
Wine Tasting Meet & Greet
Wednesday, May 15, 2019

Worcester District Medical Society

2019 SCHOLARSHIPS AVAILABLE

Awards are based on scholastic achievement, financial need, and community service.

THE APPLICANT MUST BE A LEGAL RESIDENT OF CENTRAL MASSACHUSETTS AT THE TIME OF APPLYING TO MEDICAL SCHOOL.
For a complete list of cities and towns in Central MA visit our website.

Please Submit:

- ⇒ **Completed application**
- ⇒ **Current transcript**
- ⇒ **Two letters of recommendation** (*If re-applying current information needed*)
- ⇒ **Essay stating your reasons for selecting a career in medicine, and why you feel deserving of the award.**

Scholarships are available to 2nd, 3rd, and 4th year students attending an accredited medical or osteopathic school

APPLICATION DEADLINE IS FRIDAY, AUGUST 02, 2019

To download an application or more information
***Visit our website*: www.wdms.org**

Questions?
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***Call*: 508-753-1579**

WORCESTER DISTRICT MEDICAL SOCIETY

2019
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AWARDS

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29TH ANNUAL DR. A. JANE FITZPATRICK COMMUNITY SERVICE AWARD

Established by WDMS to recognize a member of the health care community for their contributions beyond professional duties, to improve the health and well-being of others and to commemorate the life-long community contributions and exemplary efforts of Dr. Fitzpatrick in the Worcester Community.

2019 WDMS CAREER ACHIEVEMENT AWARD

Established to honor a WDMS member who has demonstrated compassion and dedication to the medical needs of patients and/or the public, and has made significant contributions to the practice of medicine.

TO NOMINATE AN INDIVIDUAL PLEASE INCLUDE:

1) A letter of nomination
2) A current curriculum vitae of the nominee
3) Letters of support are encouraged

DEADLINE: August 02, 2019

For More Information
Visit our website: www.wdms.org

Good bye, Alex!

Alex Newbury has served on the Editorial Board for the past four years as our student representative. He also served as a member of our Executive and Medical Education Committees. Although we are so happy for Alex as he enters this next chapter it will certainly be difficult to find someone as enthusiastic, insightful and committed. Alex will head to Boston for his Preliminary Year before coming back to UMass to pursue his medical career in Radiology.

Members of the WDMS Editorial Board: (L-R) Martha Wright, MBA, Executive Director, Nancy Morris, PhD, ANP, Jane Lochrie, MD, Editor, Michael Hirsh, MD, Peter Zacharia, MD, Anna Morin, PharmD.

Not pictured: Lisa Beittel, MBA, Anthony Esposito, MD, Thoru Pederson, PhD, Joel Popkin, MD, Alwyn Rapose, MD, Robert Sorrenti, MD

Good luck Alex, you will be sorely missed!

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SUMMER EDITION:

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Vitality Magazine