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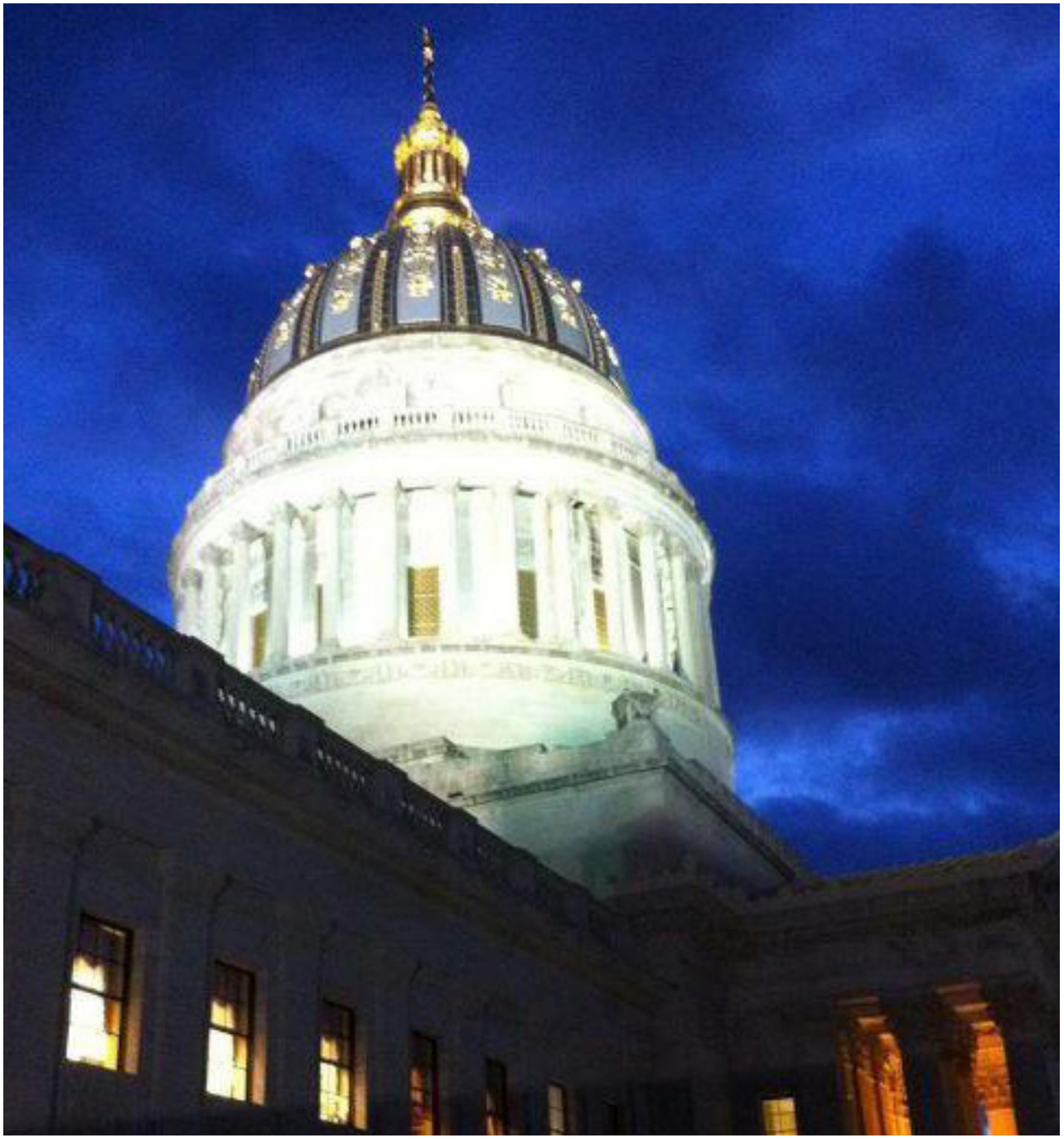

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Dr. Bob Crossey keep his patients healthy. I
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President's Message

Sherri Young, DO, FAAFP

WVSMA President, 2019-2020

Women in Medicine

Scholars have long debated the true birth of the practice of medicine. The first evidence of surgery in the skulls of human remains has been found, dating back to the stone ages. Fossilized evidence suggests some of these patients survived cranial operations as an area within the bone had grown back in cadavers. Whether this is evidence of injuries that these men and women sustained and survived or are a direct result of surgical intervention, we may never know. After all, electronic health records were not in use during the stone ages.

Most attribute the birth of medicine to Hippocrates of Kos, who was born in 460 B.C. and died 370 B.C. He was a Greek physician and is considered one of the most outstanding figures in the history of medicine, often referred to as the "Father of Medicine." New physicians take the Hippocratic oath as they graduate and begin their medical practices. We continue to see the importance of the early influences into modern medicine. However, we did not see the first clinically trained and recognized female physician for more than nearly two millennia after Hippocrates.

Dr. Elizabeth Blackwell was born Feb. 3, 1821 and died on May 31, 1920. Known as the pioneer to women in medicine, she was a British-born medical practitioner, noted as the first woman to receive a medical degree in the United States, as well as the first woman on the United Kingdom Medical Register. National Women Physician Day is celebrated annually on Feb. 3 in remembrance of her contributions to the medical field. Her accomplishments are remarkable, especially when you consider women did not have the right to vote in U.S. elections until the year she died.

'For what is done or learned by one class of women becomes, by virtue of their common womanhood, the property of all women.'

Dr. Blackwell opened the door for women physicians. Her work allowed women to earn their place in the house of medicine. It would be nearly a century laterwhen the tides turned when more women than men are entering medical school. According to the Association of American Medical Colleges, in 2017, women officially became the majority of those entering medical school, at 50.7 %.

Not only have women became most of the students enrolled in medical school, we have risen to become leaders in medical organizations and in our communities. For the first time in the history of the American Medical Association, there are three female presidents in a row; immediate past-president Dr. Barbara McAneny, current president Dr. Patrice Harris and president-elect Dr. Susan Bailey.

Dr. Harris is a remarkable example of female leadership who began her journey to becoming a physician in the Mountain State. Dr. Harris, originally from West Virginia, was one of the distinguished guests at the 2019 WVSMA Healthcare Summit. Dr. Harris's leadership through the American Medical Association is remarkable and she continues to inspire other women in medicine to rise into leadership.

With respect to our past, WVSMA will continue to lead the charge in supporting all physicians in their roles, as well as supporting women in becoming leaders within our organization. One of the ways we have been recruiting our new leaders has been the policy rotation for

President's Message

WVSMA Executive Director Danny F. Scalise and Dr. Patrice Harris at the 2019 Healthcare Summit

third- and fourth-year medical students. Recently, I had the opportunity to work with three remarkable medical students, who are the future of medicine.

A few weeks ago, on what seemed an otherwise monotonous day, I had a visit from three exceptional medical students. What began as an hour-long discussion on policy and the legislative process became a deeper discussion on the future of medicine. Settled into my new career as a public health officer, I sometimes forget to appreciate the importance of WVSMA and how much policy, or legislative change, impacts physicians' careers. After several years as chair of the Legislative Committee, then moving through the ranks of WVSMA leadership, I am so happy with the achievements in our organization. Recruiting young medical students is important for the future of our organization.

During this time with the medical students, I felt a renewed energy for WVSMA and the house of medicine. We must support the energy and bright ideas of those at the beginning their medical careers. I am elated with the course of women in medicine and how much we have collectively achieved in the past 100 years. It is time to plan for the next 100 years.

WVSMA serves an important role in shaping the future of medicine, especially with the support of women physicians. In WVSMA's 154-year history, there have been four female presidents. I am the fourth. We need more women in leadership roles as we navigate into the future of medicine. The highly successful student policy rotations must continue. They are an excellent conduit for identifying future leaders. WVSMA must continue to welcome students, residents and physicians early in their medical practices. It's exciting WVSMA is pursuing a women in medicine section, aiming to specifically connect to and support women physicians in West Virginia. To the past leaders of WVSMA, thank you for your time, personal sacrifice and for building the organization we have today. For the future leaders of WVSMA, never, never, never let anyone discourage you in becoming the physician leaders you are meant to be.

*This article is dedicated to all women in medicine; past, present and future--specially four women who are the future of medicine; Dr. Lisa Costello, Clara Novotny, MS IV, Rachel Heist, MS IV, and Lyndsey Weatherly, MS IV.

Dr. Blackwell (pictured) opened the door for women physicians. Her work allowed women to earn their place in the house of medicine. It would be nearly a century later ... when more women than men are entering medical school. According to the Association of American Medical Colleges, in 2017, women officially became the majority of those entering medical school, at 50.7 %.

West Virginia Mutual Insurance Company

R. Austin Wallace, MD
Chairman and CEO
West Virginia Mutual Insurance Conmpany

A Jury of Our Peers?

It is my pleasure and privilege to be a member of the Medical Professional Liability Association Board of Directors since 2012. This organization, which underwent rebranding last year from its previous name, the Physician Insurers Association of America, to reflect a more diverse membership including international member companies, has many excellent educational programs for its member companies and their board members and employees.

One such offering was a meeting put on by the Regional Member Roundtable, a group of similar regionally focused companies for which I act as co-chair, as a part of a larger MPL Association meeting this past March. Our main speaker was Claire Luna, who is chief executive officer of JuryImpact, Inc., an Irvine, California, based company that does deposition preparation for defendants in medical liability lawsuits along with jury consulting for their counsels.

She and her firm did a survey of more than 500 jury-eligible people recently that revealed what I found to be some very interesting and occasionally very troubling findings about the attitudes of potential jurors in general (and millennials in particular.) Millennials, often defined as those born from around 1980-1982 until the mid-1990s, now represent the largest jury-eligible age group in the United States. The positive response percentages in the survey are noted, with those attributable to millennials shown in parentheses:

Litigation

~67%: If a case gets to the courtroom, it must have merit (80%)
~65%: There is a mechanism in the legal system to throw out frivolous lawsuits (74%)
~27%: Filing a lawsuit is too hard (40%)
~35%: Filing a lawsuit is too easy (15%)

A quick review of the statistics reveals that there is definitely more bad news than good in these survey results.

Disregard for the law/instructions

~43%: Would let sympathy affect verdict even if forbidden (55%)
~34%: Would decide cases based on fairness rather than the law (46%)
~19%: Would consider [awarding] attorney fees even if told not to (46%)
~14%: Would do Internet research even if the judge forbids it (44%)

Damages/responsibility

~77%: Hospital is responsible if a person is released in worse condition than when they arrived (consistent across generations)

(Continued on page 9)

Jury of our peers?
(from page 7)

~43%: Would award money for medical bills even if no fault [is found] (62%)
~39%: Would award more than plaintiff demand to "make sure plaintiff is taken care of" (52%)
~26%: Would award more money if defendant is large hospital chain/medical system (42%)
~12%: Would increase award with knowledge that insurance would pay for it (22%)
~44%: Punitive damages claim increases likelihood that mistake was made (consistent across generations)

A quick review of the statistics reveals that there is definitely more bad news than good in these survey results. It is apparent that millennials are overall significantly more likely to be generous with jury awards, and I found it somewhat shocking that simply having a lawsuit get to the courtroom means that it has validity to potential jurors and that merely making a claim for punitive damages increases their concern about a mistake being made in all generations surveyed.

It is a given that our respect for the rule of law has defined Americans for the entirety of the existence of our great country, and trials before juries of our peers are essential to this process. We physicians not infrequently complain that a jury of lay people does not represent a true jury of our peers. However, even though the above statistics are often somewhat startling, we need to be very careful about what we wish for, as our own physician peers can be much more critical of medical liability defendants' actions than lay people.

Dr. Robert Ghiz, our founding Chairman of the Board at the Mutual, called this the "Grand Rounds Effect" when he spoke at our CARE risk management seminars, and I picked up the term from him. During our training as physicians, we are conditioned to look at medical care with a very critical eye as part of the very necessary performance quality improvement process for residents, interns, and attendings. However, this critical eye does not translate at all well to the legal arena. One of my CEO colleagues in another state remarked to me once that the physicians there had to ditch the state's physician medical review panel process because the physicians on the pre-suit review panels tended to be much harder on their colleagues being sued than lay jurors in actual trials.

Therefore, despite its flaws, as evidenced by a number of the attitudes of potential jurors demonstrated in the survey done by Claire Luna and her company, a trial by a jury of our (lay) peers remains the best option for us physicians, in my humble opinion, and it continues to stand the test of time despite societal changes. Please be assured that your Mutual will continue to monitor trends such as these that affect you, as we are **Physicians Insuring Physicians.**

Pediatric Resident Legislative Rotation

Allyn Small, MD
Jeffrey Lim, DO

During the month of January, we participated in an elective legislative rotation with the West Virginia State Medical Association. This rotation was different from our traditional medicine rotations. Because of the hospitality and leadership of WVSMA, we were granted the opportunity of a lifetime. Throughout our rotation, we had a multitude of inspiring and eye-opening experiences of how to best flex our advocacy muscles to be a voice for our patients as well as fellow physicians.

Our series of fortunate events commenced with the annual "Issues & Eggs" legislative breakfast to kick-off the 2020 legislative session. At this event, Senate President Mitch Carmichael and House Speaker Roger Hanshaw addressed their concerns and issues that they will be focusing on during the legislative session.

Accompanied by pediatric hospitalist attendings Neil Copeland, MD, and Lisa Costello, MD, we were introduced to Majority Leader Sen. Tom Takubo, DO, and Del. Margaret Staggers, MD, fellow physicians passionate about making a change for patients and families in West Virginia.

We discussed the lawmaking process and researched numerous bills related to health care as well as bills that could potentially impact us as physicians in West Virginia. We formed a legislative group with Elizabeth Strickler and Skylar Kipps from the West Virginia University School of Dentistry and created a fact sheet our senate bill to protect patients by prohibiting smoking in vehicles when minors less than 18 years of age are present. We joined Del. Matthew Rohrbach, MD (Chair of the House Committee on Prevention and Treatment of Substance Abuse) and his committee for their discussion on multiple originating bills that included updating the Naloxone law and the organizational structure of the Office of Drug Control Policy. It was interesting to observe how committees discussed bills, requested expert witnesses, and debated proposed bills based upon their understanding and perception. In medicine, our clinical decisions are supported by the current standard of care and available evidence-based medicine. There are certain instances during committee meetings when this is unavailable and therefore, we must consider the perspective of legislators and their constituents in order to successfully pass a bill into becoming law.

We continued our health advocacy journey and met with Cathy Slemp, MD, commissioner of the Bureau for Public Health and State Health Officer. Dr. Slemp was welcoming and familiarized us on the many branches of her organization. She was gracious enough to lead us in our discussion of social determinants of health and the tremendous impact public health has on our patients and their families. We then met with Sherri Young, DO, executive director of the Kanawha-Charleston Health Department, who was extremely kind in inviting us to her workplace. While discussing many pediatric topics such as the misconception that immunizations cause autism, Dr. Young shared her story of what it was like to be the first state health immunization officer after the bill to streamline the process for medical exemptions passed several years ago. Both physicians and their passions strengthened and inspired us to continue to advocate for our patients.

In between attending Senate and House Health Committee meetings, we continued our journey towards a better understanding of health policy

Pediatric Resident Legislative Rotation

and advocacy. We met with Justice Evan Jenkins of the West Virginia Supreme Court of Appeals, who gave us insight on the innerworkings of the judicial branch and the Rules of Appellate Procedure, both of which were reinforced after observing several oral arguments. Majority Leader Sen. Takubo graciously made time for us in his busy schedule to discuss several topics that affected us clinically, legislatively, and emotionally – most notably the dangers of EVALI (e-cigarette or vaping product use associated lung injury) and the regulation of such products. Spending time with Justice Jenkins and Sen. Takubo motivated us to continue protecting our patients in the same way these two gentlemen strive daily to protect those in West Virginia.

As our legislative rotation came to a close, we reflected on the amazing opportunities that were provided for us. Our experiences provided a firm foundation which we can now build upon. We would like to thank the WVSMA, Danny Scalise, and his staff for all of their hospitality and planning that went into making this rotation such an eye-opening and educational experience. Our biggest takeaway from this rotation is to benefit our current and future patients as well as the future of physicians, it is of the utmost importance to be actively involved in health policy and advocacy regardless of our current level of training or stage of life.

In between attending Senate and House Health Committee meetings, we CONTINUED OUR JOURNEY towards a better understanding of health policy and advocacy. We met with JUSTICE EVAN JENKINS of the West Virginia Supreme Court of Appeals, who gave us insight on the innerworkings of the judicial branch and the Rules of Appellate Procedure, both of which were reinforced after observing several oral arguments. MAJORITY LEADER SEN. TAKUBO graciously made time for us in his busy schedule to discuss several topics that affected us clinically, legislatively, and emotionally.

Fourth year rotation recollections

Clara Novotny
Meddical Student IV
West Virginia University

Rachel Heist
Medical Student IV
West Virginia University

Lyndsey Weatherly
Medical Student IV
West Virginia University

Beginning this rotation as fourth year medical students interested in pursuing primary care specialties, we had an understanding of the importance of public health and the reality that health and well-being are often impacted more by a person's community and surroundings than their individual interactions with their medical providers. We had the incredible opportunity to witness firsthand the process of how bills that shape both our practice of medicine and patient resources are conceived, designed, and implemented. This unique experience helped us understand the complex system that crafts laws concerning issues that we are passionate about as we know they will impact our future practices as physicians.

As students training in West Virginia, daily we see the impact that toxic stressors in childhood have on a patient's health through adulthood These stressors, commonly called adverse childhood experiences (ACEs), have been examined and shown to correlate with poor health outcomes. Examples of these ACEs include substance use in the home, divorced parents, food insecurity, and abuse or neglect. When a child experiences several of these traumas early in life, their risk of chronic illness like obstructive lung disease, diabetes, substance use disorders, and even autoimmune disease increases. As many physicians in West Virginia know, these early stressors are often too common in this state. Although the long-term consequences of high ACE scores have been demonstrated in literature for decades, medical providers lack tools and support to best assess and investigate prevention of these traumas and their adverse effects.

Early in our health policy rotation, we met with public officials who address matters of the health of West Virginians on a daily basis. Our supreme court justices shared with us their burden of cases involving custody decision-making. These cases often involve several of the designated ACEs, like substance use, divorce, and abuse or neglect. We learned from epidemiologists and state leaders at the Department of Health and Human Resources the pervasiveness of ACEs and their associated chronic diseases within our population. Each expert we encountered offered unique thoughts on how best to approach the mounting health crises in our state that stem from these toxic stressors. This broad range of input from different perspectives confirmed that a problem as ubiquitous as ACEs requires a multi-faceted approach. This legislative session, a group of West Virginians set out to address this need--a bill thoughtfully crafted by delegates and physicians to make a comprehensive plan for handling ACEs. We medical students used this rotation as our opportunity to learn about the impact ACEs have on our state, and by following the progress of this important bill, we learned how physician involvement can play a beneficial role in population health.

We had the opportunity to follow this proposed bill, House Bill 4773, which would establish a workgroup to investigate and recommend screening protocols for ACEs in this state. It was created by medical professionals collaborating with lawmakers to design the bill in a way that could be reasonably implemented. While many experts contributed to the writing process, we learned that bills must be introduced by either a senator or delegate. In this case Del. Lisa Zukoff was the lead sponsor, and by her leadership the bill was formally introduced to the House of Delegates. Bills must be scrutinized and voted through committees before they can be presented to the full voting body of each chamber. HB 4773 was directed to the House Committee on Health and Human Resources. Committee meetings often include discussion of the bill's potential impact and testimony of members of the community who offer expertise on the potential laws. We learned there are several different types of these committees in both the House and the Senate that also address health-relevant bills. Bills must survive each referenced committee to have the chance to be made into law.

During this rotation, we joined forces with the West Virginia Chapter of the American Academy of Pediatrics for Tiny Hearts Day, an advocacy event for pediatricians, pediatric residents, and medical students from across the state who came to the Capitol to offer expertise about children's health issues, including ACEs, and arm lawmakers with the education needed to make informed decisions. On Tiny Hearts Day, after a morning of as many delegate and senator meetings as

Fourth year rotation recollections

possible, we were ecstatic to witness HB 4773 pass through the House Health committee with multiple delegates speaking passionately about the positive impact that this bill could have on the health of our state. Delegates recited statistics and details we had shared only hours before in our one-on-one meetings as evidence to support its passage, showing that our educational efforts had truly helped the cause. After passage, the bill then progressed to the House floor, where all bills must be read on three separate days before a final vote on the third day. HB 4773 passed on the House floor with 95 members supporting and only three voting against passage. This important moment encouraged us that delegates recognize the value of this coalition for their West Virginia constituents. By the end of our rotation, the bill had progressed to the Senate, where it was assigned to the Senate Committee on Health and Human Resources. Here, it will again be closely examined before it will have the opportunity to be presented for vote by the entire Senate. Only bills that pass both chambers in this manner can be officially signed by the governor to become law. [Editor's note: The bill passed.]

We can still engage with the legislative process, even though,we are no longer walking the halls of the Capitol, and we will continue to anxiously follow this important piece of legislation in hopes that it survives this arduous process. Bills such as this often create the potential for change, but we as health care providers must ensure that our patients have the opportunity to benefit from these new changes. Physicians have an important role to play in lawmaking. It is crucial, for the health of patients, to be involved in as much of the process as possible by keeping up-to-date on health-related legislation and maintaining discusssion with local senators and delegates. We are thankful for this eye-opening experience and will continue to advocate for our patients throughout our carfeers and encourage others to do the same.

Physicians have an important role to play in lawmaking. It is crucial, for the health of patients, to be involved in as much of the process as possible by keeping up-to-date on health-related legislation and maintaining discusssion with local senators and delegates.

Enrolled Committee Substitute for HB 4773 **completed legislative action** on March 4, 2020.

It was **approved** by West Virginia Gov. Jim Justice on March 25, 2020.

It is **effective** June 2, 2020.

2019 Appalachian Addicition and Prescription Drug Abuse Conference

Prescriber Education Continued

The 2019 Apppalachian Addiction & Prescription Drug Abuse Conference exceeded our expectations for continued growth, integration and collaboration of multiple health care professional disciplines.

The 2019 Apppalachian Addiction & Prescription Drug Abuse Conference exceeded our expectations for continued growth, integration and collaboration of multiple health care professional disciplines.

It was held Oct. 17-19 at the Morgantown Marriott at Waterfront Place with more than 500 participants from 12 disciplines and 35 exhibitors in attendance.

This year's conference opening and overview were lead by AAPDAC organizer, P. Bradley Hall,

P. Bradley Hall, MD
Executive Director
WV Medical Professionals Health Program, Inc.
AAPDAC Conference Chair

MD, DABAM, DFASAM, and Catherine Slemp, MD, MPH, commissioner of the Bureau for Public Health and State Health Officer within the West Virginia Departmentof Health and Human Resources

Slemp

Berry

James H. Berry, DO, medical director, Chestnut Ridge Center & Inpatient Diagnosis Program, and Stephanie Lytle, West Virginia University pharmacy student, co-moderated the first day of the conference. Ken Rodenbaugh, RN, CARN, CEN, provided a powerful insight about the stigma of addiction and his personal journey.

Lytle

Rodenbaugh

Andrew Kolodny, MD, codirector, Opioid Policy Research Institute for Behavioral Health Schneider Institutes for Health Policy, Heller School for Social Policy and Management, Brandeis University, followed with a presentation on the opioid crisis, understanding and responding to an epidemic.

2019 Appalachian Addicition and Prescription Drug Abuse Conference

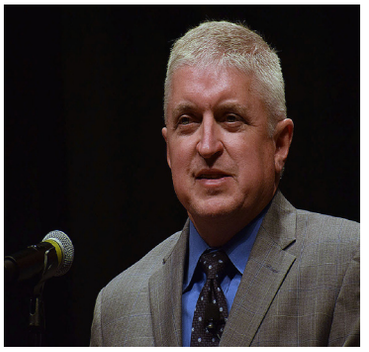
Kelly

The luncheon program featured Anna Kelly, LAc., MD, FAAMA, addiction medicine, Gundersen Healthcare, who spoke on spirituality as medicine and in recovery. Renna McGinnis, RN, project consultant, Intervention Project for Nurses, provided a nurse's fit to perform training breakout sessions.

Stanger

Louise Stanger, EdD, LCSW, CIP, CDWF, author, educator, speaker and interventionist, spoke on the relevant topic of addiction, mental health and suicide among professionals, noting 400 physicians commit suicide each year.

The first day's presentations ended with Arthur Rubin, DO, FACOP, MHA, president, West Virginia Osteopathic Medicine Association, and



Goff

Michael Goff, executive director, West Virginia Board of Pharmacy, providing a legislative update and discussing laws, rules and regulations, including the Controlled Substance Monitoring Program.

Duran

The evening concluded with Alisa Duran, MD, FACP, associate professor of medicine, University of Minnesota, who spoke of leaning into vulnerability and the power of the personal story for reducing stigma around addiction.

Supreme Court Justice Beth Walker welcomed participants and provided an update on West Virginia's drug epidemic and her perspective. The Honorable Justice Walker commented on her experience and conveyed her personal support to everyone involved in the conference.

Walker

Jawaid

Umar Jawaid, resident, West Virginia School of Osteopathic Medicine, and Susan Abbott, MSN, APRN, FNP-BC, co-moderated the second day of the conference. Marvin D. Seppala, MD, chief medical

Abbott

officer, Hazelden Betty Ford Foundation, discussed the integration of opioid addiction treatment with MAT and 12-step programs.

Seppala

Kirk Moberg, MD, PhD, FASAM, UnityPoint Health Illinois Institute for Addiction Recovery, clinical professor of Internal Medicine and Psychiatry, University of Illinois College of Medicine, provided an indepth presentation on pain and addiction best practices. Jeannie Sperry, PhD, LP, cochair, Division of Addictions, Transplant, and Pain, Mayo Clinic, Department of Psychiatry and Psychology; assistant professor, Mayo School of Medicine, discussed cognitive behavioral therapy in

2019 Appalachian Addicition and Prescription Drug Abuse Conference

Moberg

the treatment of pain.

Laura Lander, MSW, LCSW, associate professor, Department of Behavioral Medicine and Psychiatry, WVU, and Keith Zullig, PhD, MSPH, FASHA, FAAHB, chair and professor, Department of Social and Behavioral Sciences, WVU; associate director, WVU Injury Control Research Center, provided the luncheon program focusing on mindfulness in the treatment of opioid use disorder.

Zullig

Sperry

Clark Gaither, MD, medical director, North Carolina Physicians Health Program, stressed the importance of "self-care" in his presentation from burnout to wellness: a road map to engagement. Kelly Lemon, MSN, CNM, WHNP-BC, WVU Medicine, provided insights on management of addiction during pregnancy and neonatal abstinence syndrome.

Our evening was topped off with Judith Grisel, PhD, Behavioral Neuroscience/ Psychology, Bucknell University and author, *Never Enough*; who gave a compelling personal story of her journey and drive to end addiction in *Never Enough* – how affective homeostasis creates addiction: marijuana and opiates.

Our moderator for the third day was Thomas Burton, resident, Joan C. Edwards School of Medicine. Brian Quigley, MD, assistant professor/medical director of Psychiatry Services WELL WVU, J.W. Ruby Memorial

Burton

Hospital, and Jeremiah Hopkins, MD, assistant professor/adult psychiatrist-student health, J.W. Ruby Memorial Hospital, started the morning discussing anxiety and ADHD.

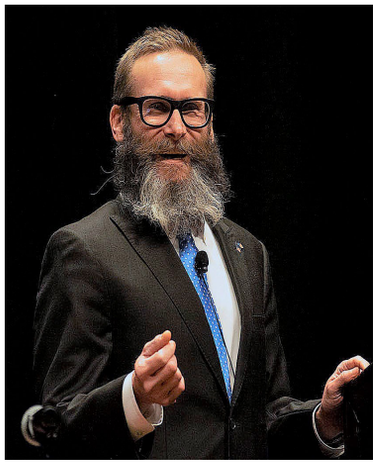
Quigley

Marc Potenza, PhD, MD, professor of psychiatry, in the Child Study Center of Neuroscience; director, Center of Excellence in Gambling Research; director, Yale Program for Research on Impulsivity and Impulse Control Disorders; director, Women and Addictive Disorders, Women's Health Research at Yale, discussed connectivity addiction, problematic internet, gaming and social media. Elizabeth "Libby" Stuyt, MD, medical director, Circle Program, Crossroads Turning Point, Colorado;

Potenza

Stuyt

psychiatrist, Pueblo Community Health Center, provided a detailed overview on marijuana/CBD, fact or fiction.



Mock

Saturday morning ended with an update on understanding lethality, West Virginia overdose statistics, provided by Allen Mock, MD, MS, FCAP, FNAME, chief medical examiner, State of West Virginia, Office of the Chief

2019 Appalachian Addicition and Prescription Drug Abuse Conference

Medical Examiner. Dr. Mock provided statistical information indicating that while West Virginia has seen a reduction in opioid overdoses, heroin-related overdoses continue to be a major concern with rates surpassing previous years, and the co-use of heroin and fentanyl have reached record setting highs.

The conference was supported by WVSMA, WVMPHP, WVDHHR, WVSAM, WVBOM, WV Board of Osteopathic Medicine, WVOMA, WV Pharmacy Recovery Network, WV Restore, WV Board of Examiners for Registered Professional Nurses and the WVOMA. Charleston Area Medical Center and the West Virginia Medical Foundation worked jointly in providing continuing medical education accreditation for the conference. A physician education grant provided by the WVDHHR Bureau for Behavioral Health and Health Facilities and administered by the WVMPHP helped make this conference possible.

Mark your calendars for next year's conference, Oct. 1-3, 2020.

More than 500 people attended the 2019 conference in Morgantown.

This year's conference is Oct. 1-3 at the Marriott at Waterfront Place in Morgantown.

THANK YOU

2019 WVMPHP 'Spirit of Wellness in Medicine' Contributors

On behalf of the West Virginia Medical Professionals Health Program, our participants, all of organized medicine and the public we serve, the WVMPHP wishes to express our sincere appreciation to our 2019 WVMPHP "Spirit of Wellness in Medicine" contributors.

The West Virginia Medical Professionals Health Program was established in 2007 by organized medicine as an independent, non-profit 501(c)3 corporation.

The WVMPHP promotes the health of West Virginians through improving the well-being of West Virginia physicians, podiatrists, physician assistants, medical students/residents, and other health care professionals. The WVMPHP remains the designated physician health program by both the allopathic and osteopathic licensure boards.

The WVMPHP has provided assistance and guidance to more than nearly 300 ill health care professionals experiencing addiction and/or mental illness. There have been more than 500 indirectly provided guidance informally, not as participants.

Eighty-plus-percent of those individuals have achieved successful completion or are pending completion of the program. In addition, the WVMPHP has provided more than 160 educational presentations, with more than 17,000 attendees, and continues to provide additional education at the annual Appalachian Addiction and Prescription Drug Abuse Conference – most recently hosting more than 500 professionals.

The accomplishments achieved for the participant, the patient, the healthcare system, and the state of West Virginia are only because of the ongoing support and recognition of organized medicine and specifically including our 2019 "Spirit" contributors.

The WVMPHP Board of Directors wishes to recognize our 2019 "Spirit of Wellness in Medicine" Funding Campaign Contributors.

Friend ($1 - $499)

John Aldis, M.D.
Aous Al-Khaldi, M.D.
Russell Biundo, M.D.
Craig Boisvert, D.O.
Lance Dubberke, M.D.
Christopher Edwards, D.O.
James Felsen, M.D.
Robert Knittle
William A. Merva, M.D.
T. Pinckney McIlwain, M.D.
Pam Scott, PA
Shafic Sraj, M.D.
Elizabeth & Peter Strobl, M.D.
Philip H. Strobl, M.D.
Patricia & Albert Villarosa, M.D.

Caregiver ($500 - $999)

Phyllis & Sam Cann
Cheryl & Creel Cornwell, M.D.
Lisa & Bradley Henry, M.D.
Carl Overmiller, M.D.
Lorenzo Pence, D.O.
Irene Wasylyk, M.D.
Sherri Young, D.O.

Advocate ($1,000 - $2,499)

R. Curtis Arnold, DPM
Huntington Internal Medicine Group
Laura & Owen Lander, M.D.
Joseph Selby, M.D.
Stonewall Jackson Memorial Hospital

Ally of Hope

($2,500 - $4,999)

Steven Novotny, M.D.

Pillar of Hope

($5,000 - $9,999)

Princeton Community Hospital
Roane General Hospital
Thomas Health System Inc.

Partner in Health

($10,000 - $24,999)

Cabell-Huntington Hospital
Monongalia General Hospital

Leader of Healing

($25,000 - $34,999)

Charleston Area Medical Center & Charleston Area Medical Center Medical Staff

Legacy of Wellness

($35,000 +)

WVU Health Systems:
Barnesville Hospital
Berkeley Medical Center
Braxton Hospital
Camden Clark Medical Center
Garrett Regional Medical Center
Jackson General
Jefferson Medical Center
Potomac Valley Hospital
Reynolds Memorial Hospital
St. Joseph's Hospital- Buckhannon
Summersville Regional Medical Center
United Hospital Center
West Virginia University Hospitals
Wetzel County Hospital
Wheeling Hospital

2019 WVMPHP 'Spirit of Wellness in Medicine' Contributors

To date, your 2019 contributions have supported the WVMPHP that will assist us as we proceed forward in further establishment of a viable and successful Physicians Health Program.

On behalf of myself, the WVMPHP Board of Directors, our participants (current and future) and the public we serve, THANK YOU for your contributions and continued support of the West Virginia Medical Professionals Health Program.

P. Bradley Hall, M.D.
Executive Medical Director, WVMPHP
Immediate Past-President, FSPHP

The WVMPHP promotes the health of West Virginians through improving the well-being of West Virginia physicians, podiatrists, physician assistants, medical students/ residents, and other health care professionals.

The accomplishments achieved for the participant, the patient, the healthcare system, and the state of West Virginia are only because of the ongoing support and recognition of organized medicine ... including our 2019 "Spirit" contributors.

LCME accredits Marshall School of Medicine for full eight years

Marshall University Joan C. Edwards School of Medicine has received a full, eight-year accreditation from the Liaison Committee on Medical Education, the maximum period of accreditation a school can receive.

"This is a tremendous achievement for a school of medicine," said Joseph I. Shapiro, MD, dean of the school of medicine. "The LCME continues to raise the bar for medical education, and I am so pleased with how our school has worked to meet and exceed those benchmarks."

The accreditation process involved a two-year period during which teams of faculty, staff and students produced an extensive self-study that was submitted to the LCME in December 2018. The self-study was then comprehensively reviewed by an LCME survey team prior to a three-day site visit during spring 2019. LCME generated its final report in October 2019.

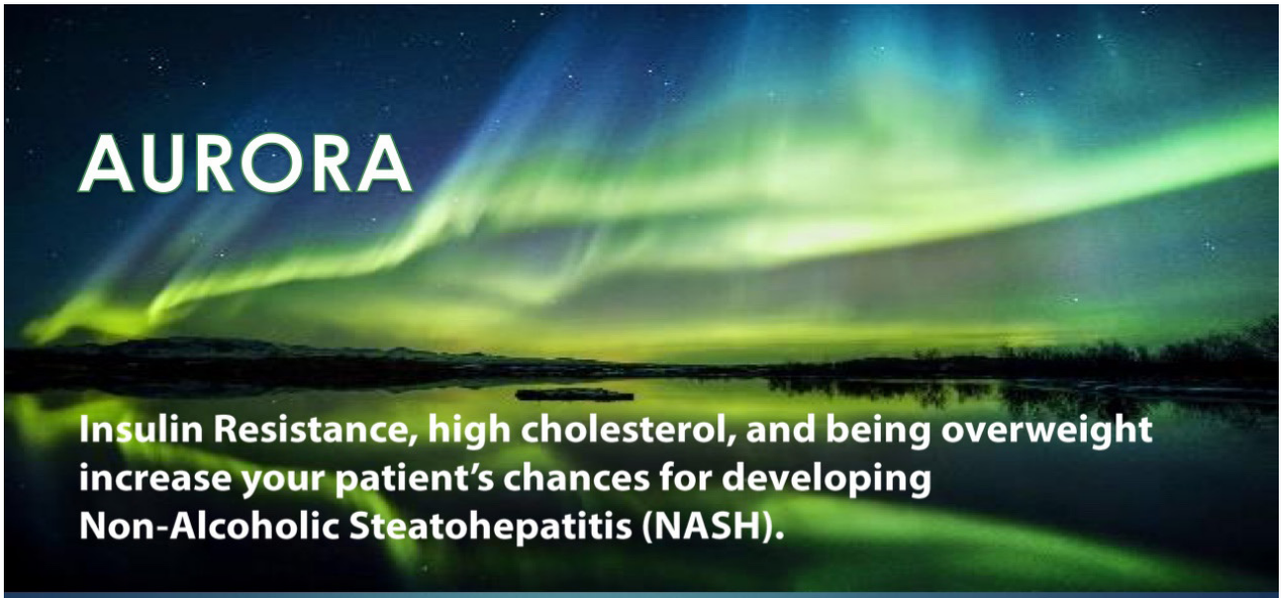
During that same time, Marshall School of Medicine was preparing for a major revision to its medical education curriculum. In June 2019, the school submitted its revised curriculum plans, which merge pre-clinical and clinical education into an active-learning format, to the LCME. Although the LCME does not decide whether a school can move forward with curriculum changes, the LCME accreditation notice validated that the school has the necessary resources to proceed with implementing the new curriculum during the 2020-2021 academic year.

The next full survey visit for Marshall's School of Medicine will be during the 2026-2027 academic year. During the interim period, the school will continue to make adjustments and monitor key areas, including career advising, through a continuous quality improvement process.

Marshall School of Medicine establishes dedicated Department of Oncology

Effective Jan. 1, 2020, a new Department of Oncology brings together more than a dozen oncology faculty at the MUJESM currently housed within a handful of departments.

Creating a dedicated department at the school alongside Edwards Comprehensive Cancer Center facilitates increased collaboration in research as well as patient care among its oncology faculty, provide more opportunities for faculty advancement and recruitment and continue to grow advanced cancer care throughout the state and region. The move creates more opportunities for expansion in the areas of graduate medical education and future fellowships.



Insulin Resistance, high cholesterol, and being overweight increase your patient's chances for developing Non-Alcoholic Steatohepatitis (NASH).

Marshall University Joan C. Edwards School of Medicine Department of Clinical and Translational Sciences is participating in a clinical trial evaluating the safety and efficacy of an investigational drug for late-stage liver disease.

NASH is a silent but progressive disease.
To qualify for the study, participants must:

- Be between the ages of 18 and 75
- Have had a liver biopsy or are willing to undergo a liver biopsy

For more information regarding this study:

Contact **Carrie Chapman, FNP-BC, or Nicole Finley, ACCNS-AG,** of the Department of Clinical and Translational Sciences at **304-691-1836.**

To learn more about research with the Marshall University's Appalachian Clinical and Translational Science Institute, visit jcesom.marshall.edu/actsi.

MARSHALL UNIVERSITY®
Joan C. Edwards School of Medicine

Study 1315421 has been approved by the Marshall University Institutional Review Board #1

WVU healthcare simulation center earns full accreditation

Joins less than 3 percent of centers worldwide

Students at West Virginia University's Health Sciences campus now have the opportunity to learn hands-on patient care at one of the world's only fully accredited healthcare simulation centers.

David and JoAnn Shaw Simulation Training and Education for Patient Safety (STEPS) recently attained full accreditation by the Society for Simulation in Healthcare's accreditation council.

STEPS is now the first and only center in West Virginia to be accredited in every area by the Society for Simulation in Healthcare. More than 700 centers worldwide are registered with the Society for Simulation in Healthcare, but less than 3 percent are accredited in all five areas.

WVU's center has been accredited in Core, Teaching and Assessment since 2014, and has now added Systems Integration and Research to its achievements.

"One of our goals of adding Systems Integration and Research is to show that we are making healthcare delivery safer for all of our patients at WVU Medicine," said Dorian Williams, Medical Director of STEPS.

STEPS, which will soon celebrate its 10-year anniversary, aims to improve patient safety by creating an environment in which students can learn, practice and measure clinical skills.

The center helps clinical learners improve their analytical, diagnostic, communication and crisis-intervention skills by utilizing a variety of patient simulators that can blink, breathe, have a heartbeat and react to medications. Additionally, standardized patients (real human actors) portray complex realistic scenarios beyond the capabilities of manikins.

"In the past 10 years, STEPS has provided the next level of healthcare education to the schools of Health Sciences and beyond with over 130,000 learner visits," said Daniel Summers, director of STEPS. "From beginner levels to the most complex scenarios, using cutting edge technology, we have been integral in educating the next generation of healthcare providers."

To learn more about STEPS, visit steps.wvu.edu.

One of our goals of adding Systems Integration and Research is to show that we are making healthcare delivery safer for all of our patients at WVU Medicine.

Health Law Society

Needle Exchange Programs

Lakyn Cecil
J.D. Candidate 2020
WVU College of Law
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This is a collaboration between the West Virginia Unvversity College of Law and West Virginia State Medical Association.

Federal and state laws criminalize possession of drug paraphernalia, including possession of syringes and hypodermic needles without a prescription. Federal law prohibits the use of federal dollars to pay for needles to be used in exchange programs; exchanges typically operate with state, local, or donated funds. States with these programs justify the implementation by acknowledging the current opioid epidemic and the resurgence of HIV/AIDS, Hepatitis B, and Hepatitis C. In choosing to enact these statutes and ordinances, states believe they are choosing the lesser of two evils. West Virginia does not have a state statute authorizing exchange programs, despite being the epicenter of the nation's drug epidemic. A bill introduced in 2017 that would have permitted the development and operation of needle exchange programs in local health departments through the amendment of W.Va. Code §16-1-6 never reached the State Senate.

Syringe and needle exchange programs provide free unused sterile needles to those with intravenous drug addiction in exchange for used needles they bring to the centers. Once the individual is registered, staff members can perform public health interventions that would have otherwise been almost impossible to provide. These include counseling, medical attention for minor drug use complications or referrals to hospitals when appropriate, as well as HIV and Hepatitis B and C screening. By capturing used needles and keeping them off the streets, the risk of accidental stabbings with infected needles by the population at large is significantly reduced. Proponents of these programs point to the opioid crisis and to the increase in heroin use as proof of their need. Opponents fear they enable individuals to continue using drugs, attract unsavory characters, increase drug dealing in the neighborhoods near the centers, and depress real estate values.

After enacting ordinances empowering the chief of police to approve programs, the Kanawha-Charleston Health Department established a needle exchange program in Charleston towards the end of 2015. The program grew rapidly and ultimately became a victim of its own success. Citizens, first responders, and municipal sanitation workers complained they frequently came across used needles in public spaces. The accidental stabbing of a five-year-old girl by a used needle in a public restroom early in 2018 triggered an audit that revealed deficiencies in the program. The program would have to start serving only county residents with proper identification. Self-retracting needles would be dispensed strictly on a one-to-one exchange ratio. Accurate records of referrals to treatment and substance rehabilitation needed to be precisely maintained. Although initially well received and successful, the program's success was in question. The program closed in March 2018 after losing its operating certificate.

How this closure is going to affect the citizens of Charleston and Kanawha County remains to be determined. The decreased availability of unused sterile needles will likely diminish the inflow of non-resident addicts and increase the utilization and sharing of needles. With fewer needles in the hands of individuals with addictions, fewer will be found in public spaces. This, unfortunately, may lead to an increase in transmission rates of blood-borne illnesses, and the opportunity for offering disease prevention, treatment, and rehabilitation options to substance abuse users will be lost.

About 333 needle exchange programs exist in the United States of America with varying degrees of success. Their success is measured using various parameters: the number of visitors to the program, the rate of referrals to addiction treatment centers, the decrease in needles found in public places, and the decrease in the incidence of HIV/AIDS, Hepatitis B and Hepatitis C in the community, among others. West Virginia continues to combat a crisis. While the ethics surrounding the concept of a needle exchange program remain questionable, there is no question that implementing a needle exchange program would be a proactive step in providing West Virginians with resources and interim measures amid the opioid crisis.

WVSOM, MU announce collaborative agreement

WVSOM President James W. Nemitz, PhD, left, and Marshall University President Jerome A. Gilbert, PhD, sign the agreement at Marshall's South Charleston campus.

The West Virginia School of Osteopathic Medicine and Marshall University, through its Joan C. Edwards School of Medicine, announced a memorandum of understanding allowing for collaborative medical education efforts between osteopathic and allopathic programs at each institution.

WVSOM President James W. Nemitz, PhD, and Marshall University President Jerome A. Gilbert, PhD., signed the agreement at Marshall's South Charleston campus. Both higher education institutions share the goal of advancing first-class medical education in West Virginia and improving access to quality physician care in communities throughout the Mountain State.

"I believe the signing of this memorandum of understanding will result in a stronger collaboration between Marshall University and WVSOM that will increase opportunities for the benefit of our students and the citizens of West Virginia," Nemitz said.

Gilbert also spoke in support of the collaboration.

"For years, we have partnered with the West Virginia School of Osteopathic Medicine on providing quality clinical education for their students in our region," Gilbert said. "This agreement formalizes our relationship and paves the way for a more integrated, collaborative framework that will continue to ensure a top-notch clinical experience for all medical students and better access to physicians for citizens in the southern part of our state."

The agreement states the schools will work to develop and expand clinical rotations for medical students at institutions associated with the Mountain Health Network, a regional health system comprising three hospitals, and explore opportunities to enhance residency placement for graduates. WVSOM and Marshall will advocate jointly on issues of mutual interest before the West Virginia Legislature, the West Virginia Higher Education Policy Commission and other governmental bodies.

Chairman Michael J. Farrell, from the West Virginia HEPC, attended the signing. He said the collaboration is an important step for the state.

"I commend these two presidents and look forward to the results of this agreement, which will be fantastic for students and patients of West Virginia. The HEPC strongly endorses what you all are doing."

Oral frenula in newborns: When should you refer for evaluation and intervention?

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This article is based on work by the authors and is not a representation of West Virginia University. The authors deny any conflict of interests or funding sources associated with this work.

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Abstract
Ankyloglossia is a common congenital anomaly, characterized by limited tongue mobility because of anatomical restriction by the lingual frenulum. The reduced tongue mobility has been associated with breastfeeding difficulty. Consensus on the functional effect of ankyloglossia is lacking and a small minority of pediatricians and otolaryngologists believe it affects feeding. A larger proportion of lactation specialists believe ankyloglossia contributes to feeding issues. Diagnostic assessment tools can guide the appropriateness of surgical correction in cases of ankyloglossia.

Recent attention has been directed to the role of the maxillary frenulum in breastfeeding difficulty. We will review current literature on both topics with the aim to clarify when pediatric patients should be referred for appropriate surgical intervention.

Introduction
The American Academy of Pediatrics recommends exclusive breastfeeding for the first six months of life, as breastfeeding has been shown to benefit the newborn's immune system, which protects against a variety of diseases and conditions[1]. Abnormal newborn oral anatomy has been suspected to be involved in breastfeeding difficulties. Ankyloglossia, or, and a short superior labial frenulum, also known as upper lip tie, have received attention as contributors to breastfeeding failure. Over the past decade, surgical intervention rates for both have increased, despite lack of good quality data and well-defined clinical guidelines. The goal of this review is to provide clinicians with an up-to-date guide for evaluating oral frenula in newborns and to provide information regarding when these patients should be referred for surgical intervention.

Tongue tie
Ankyloglossia, colloquially known as tongue-tie, is a common congenital abnormality, which leads to restricted mobility of the tongue (Figure 1). The Academy of Breastfeeding Medicine describes ankyloglossia as "a sublingual frenulum which changes the appearance and/or function of the infant's tongue because of its decreased length, lack of elasticity or attachment too distal beneath the tongue or too close to or into the gingival ridge"[2]. Ankyloglossia can be classified as either anterior or posterior. Anterior ankyloglossia, or classic ankyloglossia, is described as the lingual frenulum attaching at or near the tongue tip, which may limit normal tongue movement. Posterior ankyloglossia, a more recently described entity, is the attachment of the lingual frenulum at the middle or posterior portion of the undersurface of the tongue thought to result in impaired tongue mobility demonstrated by cupping of the tongue. However, controversy surrounds the significance of posterior ankyloglossia, with some authors suggesting that posterior ankyloglossia is a normal variant of attachment.[3] Most literature about prevalence, incidence, and the treatment of ankyloglossia does not include patients with posterior ankyloglossia.

Estimates of the incidence and prevalence of ankyloglossia

Estimates of the incidence and prevalence of ankyloglossia are well characterized in the literature; however, the diagnostic criteria used in these studies vary widely. Incidence estimates of ankyloglossia range between 0.02% and 10.7%[4-6]. It is more prevalent in males than females, with estimated male:female ratios ranging from 1.5:1 to 2.6:17. Given the prevalence of ankyloglossia, a precise and reliable method of diagnosis would be expected to be in place and commonly used by practitioners. Unfortunately, such criteria are not widely accepted and establishing the diagnosis and functional impact of the ankyloglossia can be difficult.

Diagnosis

New diagnoses of ankyloglossia are on the rise; Walsh, et al. reported an 834% increase in the diagnosis between 1997 and 2012, with the greatest increase in the latter six years.[7] Although the incidence of new diagnoses has increased, there is a lack of consensus about criteria for diagnosis. Methods of assessing ankyloglossia based on anatomic characteristics have been described (Table 1). The Coryllos classification grades ankyloglossia based on the point of attachment of the frenulum to the tongue.[9] Taken one step further, two methods of diagnosing ankyloglossia utilizing anatomic and functional measures have been described. One method is the Hazelbaker Assessment Tool for Lingual Frenulum Function (HATLFF).[10] This assessment has been shown to have a high degree of inter-rater reliability with regard to recommendation for surgical intervention.[11] This assessment has been further simplified into the Bristol Tongue Assessment Tool (BTAT). This assessment has been shown to positively correlate with HATLFF scores.[12]

Symptoms

Ankyloglossia is reported to cause a wide variety of difficulties associated with feeding, in particular latching and breastfeeding. Although most infants born with ankyloglossia will feed normally, problems with breastfeeding are more likely to arise in infants with ankyloglossia.[13] More specifically, ankyloglossia has been shown to be associated with ineffective latching, with a decreased ability to create a seal, leading to poor infant weight gain and maternal nipple pain.[14] Infants with symptomatic ankyloglossia are unable to extend the tongue beyond the mandibular alveolar ridge which prohibits proper latch. Non-surgical treatments include positioning and nipple shields. Surgical correction of ankyloglossia has been shown to result in significant im-

provement in breastfeeding outcome measures.[15]

Older children may experience speech articulation difficulties, particularly lingual sounds /l/ and interdental sounds /th/, because of ankyloglossia,[16] but it is important for practitioners to know that ankyloglossia does not delay the onset of speech.[17] Repair for articulation issues should not be undertaken prophylactically as they are not universal in this population.

Surgical Interventions

An algorithm for management of infants with breastfeeding problems and possible ankyloglossia appears in Figure 2. Consultation with a lactation specialist should be undertaken when infants experience difficulty with breastfeeding, as improved technique may obviate the need for surgical intervention for ankyloglossia.[18] Although surgical intervention in cases of breastfeeding difficulties has been shown to be of benefit in some studies1,[15] larger systematic reviews have found a paucity of evidence. Overall, the quality of evidence is low to insufficient.[19] As well, a systematic review of the literature reported the data to be insufficient to support the use of surgical intervention in cases of speech articulation difficulties.[20]

Two general methods of surgical intervention have been described in cases of ankyloglossia, frenotomy (lengthening the frenulum by incising it) and frenuloplasty (surgical alteration of the frenulum). Frenotomy is often done without anesthesia in the newborn nursery.[21] The infant is placed in the supine position, and a clamp is placed at the site of incision to create a hemostatic plane. A cut is made through the frenulum with fine scissors, with care to avoid the submandibular ducts. The patient is then given back to the mother for breast or bottle-feeding, which is thought to accelerate hemostasis. Although this is a common procedure, the authors recommend having the procedure done in the operating room or with general anesthesia to allow more complete release and control of bleeding.[22] Research suggests that need for re-operation for ankyloglossia is higher with those procedures done without anesthesia.[23]

In the operating room, the infant is placed supine with intermittent mask ventilation, laryngeal mask airway or endotracheal tube.[22] A midline tongue retraction suture is placed to optimize visualization of the ventral tongue. The frenulum is incised half way between the ventral tongue and floor of mouth with fine scissors or cautery. The remaining frenulum is blunt dissected back to the tongue musculature. The resulting mucosal opening is closed with a continuous resorbable suture. This method offers less risk of damage to the venous supply alongside the frenulum and the submandibular ducts and allows more complete frenulum release.

Unlike frenotomy, frenuloplasty requires general anesthesia. These are more advanced techniques requiring tissue movement and local transfer. Advantages to these techniques include decreased recurrence of ankyloglossia and less contracture of scar tissue. An otolaryngologist will be familiar with the multiple surgical options and will aid in selection of the appropriate approach. Despite the chosen method, patients generally have increased tongue mobility shortly after the procedure.

Complications and Post-Operative Care

While generally considered a minor procedure with minimal post-operative care, frenotomy is not without complications. Although no studies have been performed to assess the comparative safety of performing the operation in the operating room versus the clinic, a lower rate of revision surgery has been demonstrated in patients undergoing the procedure in the operating room.[23] Most common risks include bleeding and damage to submandibular (Wharton's) ducts.[22] Rarely, airway complications can be seen after frenotomy. Two case reports of infants with Pierre-Robin sequence who underwent frenotomy resulted in airway obstruction secondary to posterior tongue movement. The authors of these case reports argued that surgical treatment of ankyloglossia should be contraindicated in patients with anomalies that may increase their risk of airway obstruction.[24] The risks of the procedure are not restricted to patients with anatomic/physiologic anomalies, as was demonstrated by a case report of a four-year old male who presented with hemorrhagic shock following frenotomy.[25] These reports represent rare post-operative complications, as most patients do well and return to normal activity immediately. Follow-up may be scheduled to monitor the resolution of feeding or speech symptoms.[22]

Upper Lip Tie

Definition

The maxillary frenulum, also known as the superior labial frenulum, has been described as a fold of connective tissue with overlying mucosa that attaches the upper lip to the anterior surface of the maxillary gingiva[26] (Figure 3). While the significance and function of the maxillary frenulum is the topic of much debate, studies have shown that all newborns have a maxillary frenulum and the appearance is reported to change, becoming less prominent, with age as the teeth develop and the alveolar ridge elongates.[27,28]. Given that the appearance of a maxillary frenulum will change with age, differentiating normal from abnormal has been controversial. Most of this controversy has centered on the use of surgical procedures to correct perceived abnormalities of this structure. Many have justified these procedures as a way to improve breastfeeding, though

evidence to support this justification is lacking.[29]

Symptoms

While what constitutes a "normal" or "abnormal" maxillary frenulum has yet to be elucidated, there are some practitioners performing maxillary frenotomy or frenuloplasty. Frenotomy is usually done to improve newborn latching during breastfeeding. Others have suggested that mitigation of a dental diastema may be justification for the procedure. The maxillary frenulum configuration at birth may be unrelated to its configuration once teeth start to erupt since the alveolar ridge lengthens as the patient grows. While the presence of a dental diastema is generally considered to be of no clinical significance, and is evepected in normal primary dentitions, it has been associated with periodontal disease in permanent dentition by gingival recession if attached too close to the dentogingival junction.[31] The mechanics of breastfeeding suggest that an appropriate flanging of the upper lip to allow for sufficient latching during feeding may be impeded by a short maxillary frenulum. Therefore, incision of the maxillary frenulum is thought to improve latch quality, improving breastfeeding; however, evidence to support release of the maxillary frenulum to aid in newborn latching is anecdotal at best.[29] One study reported an increase in maternal and infant breastfeeding outcome measures following surgical release of upper lip tie; however, all of those undergoing the procedure had a Kotlow class III or IV maxillary frenulum, and many also underwent ankyloglossia release, which further confounds the validity of the findings.[32]

Procedure and Risks

Surgical intervention for abnormalities of the superior labial frenulum includes frenectomy and frenotomy. These procedures may be performed through a number of techniques, including excision with a scalpel, electro-surgery, and CO2 laser, and the wound may be closed by primary intention, secondary intention, or using a Z-plasty technique. In the simplest procedure, the frenal attachment is anesthetized with lidocaine containing epinephrine. A hemostat is used to isolate the frenulum superiorly up to the gingival buccal sulcus. An incision is then made through the tissue crushed by the hemostat to free the attachment, and blunt dissection is used to remove remaining attachments. Sutures may then be placed to close the labial mucosa.[33] Although generally thought to be a minor procedure, release of the superior labial frenulum is not without associated risk, most commonly bleeding scarring, local burns, and complications of laser use. One case report described an incidence of hemorrhagic shock requiring a blood transfusion in a 13-month old following release of her maxillary frenulum; on further work-up, this child was not found to have any coagulopathy to explain the hemorrhage.[25]

Conclusions

Oral anomalies in infants can be associated with breastfeeding difficulty. Initially, breastfeeding difficulties are best managed with lactation consultation. If breastfeeding difficulties continue despite intervention by a lactation specialist, practitioners should assess for the presence of ankyloglossia. The HATLFF assessment has good inter-rater reliability and can be used to determine which infants with ankyloglossia should undergo surgical intervention. If frenotomy is deemed appropriate, otolaryngology consultation should follow. The procedure is generally minor, although adverse outcomes have been reported. Frenotomy has been shown to improve breastfeeding outcome measures, and generally requires minimal follow-up.[15, 22] On the other hand, an adequate method of diagnosing problems with the maxillary frenulum in infants is absent, and the consequences of an abnormal maxillary frenulum on breastfeeding are unclear. Maxillary frenotomy has not been shown to improve breastfeeding outcomes, and is not without risk. Given the lack of evidence to support maxillary frenotomy, surgical intervention for cases of breastfeeding difficulties is inappropriate and puts the patient at unnecessary risk. Clinicians should be familiar with these clinical entities and be able to counsel parents appropriately regarding appropriate management.

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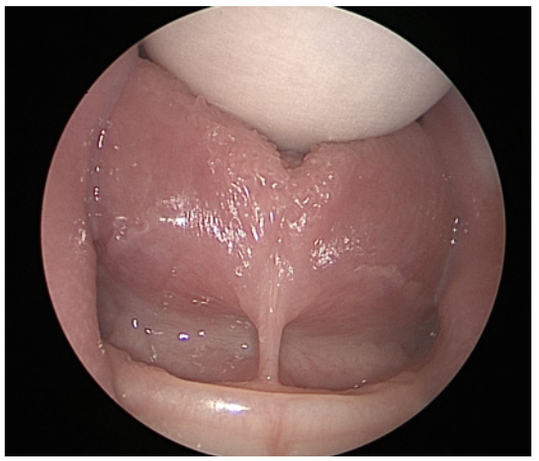


Figure 1. Ankyloglossia: Lingual frenulum attachment is just posterior to the tongue tip, with a notching of the tip visible when the tongue is extended.

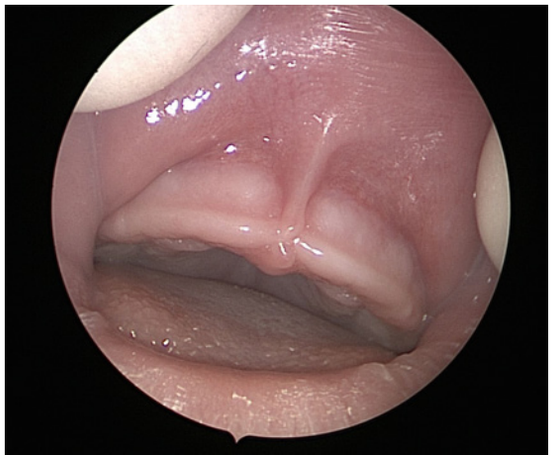


Figure 3. Maxillary frenulum: Superior labial frenulum attachment into the anterior papilla.

Figure 2. Algorithm for management of infants with breastfeeding problems and ankyloglossia.

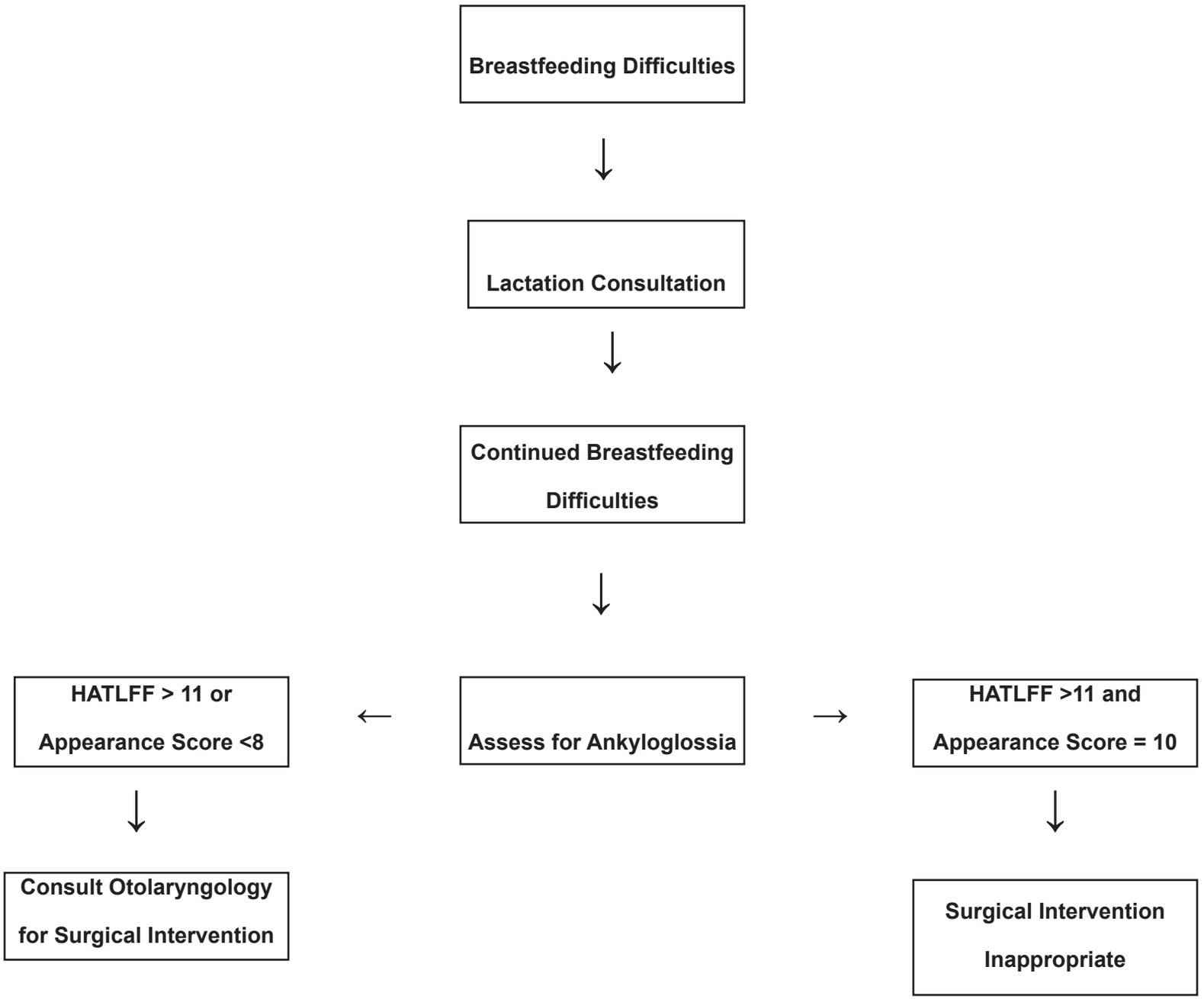


Table 1.

Classification Systems for Ankyloglossia

Coryllos Classification Scale[9]

Type I:
Attachment of the frenulum to the tongue tip, in front of the alveolar ridge

Type II:
Attachment of the frenulum 2-4 mm behind the tongue tip

Type III:
Attachment of the frenulum to the mid-tongue/middle floor of the mouth

Type IV:
Attachment to the base of the tongue

Hazelbaker Assessment Tool for Lingual Frenulum Function (1998 version) [11]

Appearance Items

Appearance of tongue when lifted
2: Round or Square
1: Slight cleft in tip apparent
0: Heart-Shaped

Elasticity of frenulum
2: Very elastic (excellent)
1: Moderately elastic
0: Little or no elasticity

Length of lingual frenulum when tongue lifted
2: More than 1 cm or embedded in tongue
1: 1 cm
0: Less than 1 cm

Attachment of lingual frenulum to tongue
2: Posterior to tip
1: At tip
0: Notched

Attachment of lingual frenulum to inferior alveolar ridge
2: Attached to floor of mouth or well below ridge
1: Attached just below ridge
0: Attached at ridge

Functional Items

Lateralization
2: Complete
1: Body of tongue but not tongue tip
0: None

Lift of tongue
2: Tip to mid-mouth
1: Only edges to mid-mouth
0: Tip stays at alveolar ridge or rises to mid-mouth only with jaw closure

Extension of tongue
2: Tip over lower lip
1: Tip over lower gum only
0: Neither of above, or anterior to mid-tongue humps

Spread of anterior tongue
2: Complete
1: Moderate or partial
0: Little or none

Cupping
2: Entire edge, firm cup
1: Side edges only, moderate cup
0: Poor or no cup
Peristalsis
2: Complete, anterior to posterior (originates at the tip)
1: Partial: originating posterior to tip
0: None or reverse peristalsis
Snapback
2: None
1: Periodic
0: Frequent or with each suck

14 = Perfect score (regardless of Appearance Item score)
11 = Acceptable if Appearance Item score is 10
<11 = Function impaired. Frenotomy should be considered if management fails. Frenotomy necessary if Appearance Item score is <8.

Table 2

Kotlow Classification of Maxillary Frenulum

Kotlow Classification Scale[30]

Class I:
Minimally visible attachment
Class II:
Attachment primarily into the gingival tissue
Class III:
Inserts just in front of anterior papilla
Class IV:
Attachment just into the hard palate or papilla area

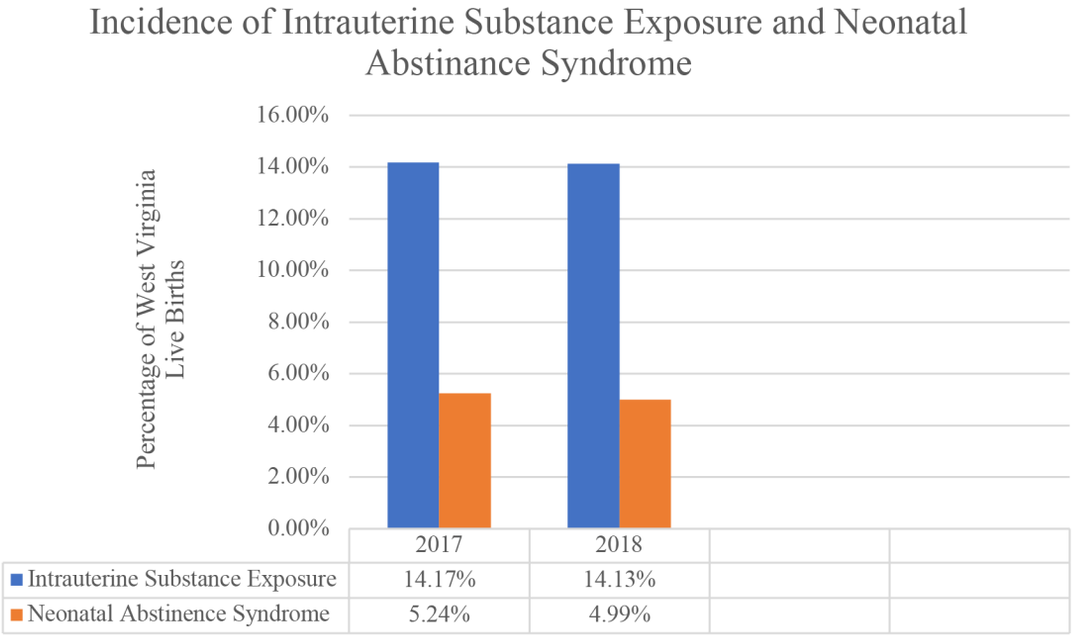
Moving from Surveillance to Supporting the Medical Home:

A Health System Intervention for West Virginia Infants with Neonatal Abstinence Syndrome

For more than two decades, the West Virginia Department of Health and Human Resources, Bureau for Public Health, and West Virginia University School of Medicine's Department of Pediatrics have worked together to administer a birth score system for all infants born in the state. This arrangement serves as a preventive program to identify newborn infants at risk for post-neonatal mortality, debilitating conditions and developmental delays. The goals of the birth score system, known as Project WATCH, are to identify newborns at greatest risk for death between one week and one year of age; and to link high-risk infants with physicians for close followup during the first year of life.

To accomplish the statutory purpose of Project WATCH, a risk identification scoring tool was developed using weighted multivariate risk score functions comprised of both infant and maternal factors. Data are collected on every infant born in West Virginia birthing hospitals/ facilities as well as most home births. Since late 2016, maternal substance use during pregnancy has been one of the 10 risk factors that encompass the risk scoring system. In late 2016, Project WATCH began collecting discrete surveillance data to calculate the incidence of neonatal abstinence syndrome in West Virginia via a standardized case definition. This ongoing NAS surveillance has been essential to informing public health-related efforts aimed at prevention, but individual level information about infants diagnosed with NAS was not, until January 2020, shared with pediatric or family medicine providers.

In June 2019, West Virginia's Perinatal Quality Collaborative (PQC), the West Virginia Perinatal Partnership, Inc., recommended that Project WATCH begin informing pediatric providers about an infant's diagnosis with NAS to ensure proper care and management. The primary objectives relating to the management of infants diagnosed with NAS are the stimulation of normal growth and development and minimization of negative outcomes including physical discomfort, sleep deprivation, seizures in the infant and impaired maternal bonding, among others. Moreover, several studies have shown infants with NAS who are breastfed are likely to have less severe symptoms, require less pharmacologic treatment, and have shorter hospital stays than formula-fed infants. In general, healthcare professionals lack specific training on the screening and management of pregnant patients



with opioid use disorder. This extends into the care of infants born with NAS.

Beginning January 2020, Project WATCH began notifying primary care providers of an infant's diagnosis of NAS. Correspondingly, and in coordination with the West Virginia Perinatal Partnership, Inc., Project WATCH will facilitate ongoing educational outreach and training for maternity care, pediatric and family medicine providers throughout the state to highlight opportunities for treatment and prevention for mothers and infants as well as plan for needed services.

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