PEDSLINES



MISSOURI CHAPTER OF THE AMERICAN ACADEMY OF PEDIATRICS | FALL 2016

P.O. Box 1219, Jefferson City, Missouri 65102 | moaap.org | Facebook/MissouriAAP | Twitter/MissouriAAP

A NOTE FROM OUR PRESIDENT

DR. KEN HALLER, MOAAP PRESIDENT

It was great to see to many pediatricians from the Show Me State at this year's American Academy of Pediatrics National Conference and Exhibition (NCE) in San Francisco in October. I always marvel at the sheer volume of activities and the huge number of pediatricians – over 15,000 this year – who gather to advance the work of child health and well being every year. As always, it was nearly impossible to choose among the hundreds of sessions being offered, with dozens going on simultaneously around the conference center. In my five days there I attended sessions on the effects of media on children and adolescents. autism spectrum disorder, LGBT children, adolescents, and parents, youth opioid addiction, recognizing genetic disorders. achieving social justice, the state of insurance coverage for kids. unaccompanied refugee minors, and using techniques of improvisational

theater in the pediatric practice setting, among many others. One of the most inspiring sessions was a plenary by Dr. Mona Hanna-Attisha of Flint, Michigan, who was one of the key advocates for children in the Flint lead crisis. In her talk she described how she became a key spokesperson for the children of Flint and brought this scandal to national attention. She also called on all of us to do all we can outside our office walls to assure the health, safety, and well being of the children we serve.

There were also plenty of opportunities for networking with colleagues, both in formal settings like the District VI Town Hall on Sunday morning and in receptions for various committees and sections. I certainly find this to be just as important as the CME in finding ways to advocate for our kids and families. Next year the NCE will be in Chicago from September 16-19, 2017. I hope you'll join us!

Closer to home I am very sad to announce that our Executive Director, Ken Hussey, will be leaving MOAAP for a new position at the statewide association of YMCAs. In his two years with the Missouri Chapter, Ken did a great job of making our website more user friendly, improving communications between the Chapter and our members, and increasing opportunities for advocacy and collaboration with state agencies and

non-profit organizations that work for kids. We will miss him, and we hope that we will be able to continue to work with Ken to advocate for kids in his new position.

I am, however, thrilled to announce that we have been joined by our new Executive Director, Kelsey Thompson. Please look for the article elsewhere in this PedsLines where she introduces herself to all of us. She started with us at the beginning of November, and she is doing a amazing job of getting up to speed on the issues we care about concerning Missouri's children. I know that's she's going to be a great addition to our team.

And I hope that you will continue to be involved in that work with us. We're going to be giving you lots of opportunities for engagement as the new General Assembly begins their session in January and as Eric Greitens takes over as Missouri's governor. We have already sent him a letter asking to meet with him and his team so we can map out strategies to assure that all our children get the health care they need. We hope you will join us for MOAAP Advocacy Day in Jefferson City on Thursday, April 13, and that you will follow us on Facebook and Twitter, as well as through our periodic email updates.

Thank you for all you do for Missouri's children.

GREETINGS FROM NEW EXECUTIVE DIRECTOR

KELSEY THOMPSON

I am excited to join MOAAP as Executive Director. I am a public affairs professional with experience in state government and political organizations. Prior to joining the MOAAP, I served as the Director of Scheduling & Operations for the Office of Governor Jay Nixon.

I have a wide range of experience leading organizations, including developing and implementing fundraising plans, grassroots campaigns, communications strategies and event planning.

I attended the University of Missouri – Columbia for both my undergraduate and graduate degrees. My husband and I have a nine month old son that is the joy of our lives. We enjoy spending free time in the outdoors and traveling across Missouri & beyond as time allows.

The MOAAP is a wonderful advocate on behalf of all Missouri's children. I look forward to working with each of

you to continue this great work. Please feel free to reach out to me with any questions for suggestions at kthompson@moaap.org.



HPV GRANT UPDATE

Children's Mercy General Academic Pediatrics, in participation with the Missouri Chapter of American Academy of Pediatrics, received grant funding from the Centers for Disease Control to boost HPV Vaccination rates.

The funds sponsored a multisite Quality Improvement project and Maintenance of Certification opportunity for providers locally and throughout Missouri. Twenty-four providers from seven practices participated in the project.

The project helped each practice look at its system surrounding the HPV vaccine and identify opportunities for improvement. From improving staff messaging, to improved patient education materials, practices have implemented various PDSA (Plan, Do, Study, Act) cycles resulting in improved vaccination rates.

For more information on the safety and importance of the HPV vaccine, please check out the following links to two short Provider/Patient informational videos featuring Dr. Barbara Pahud, Infectious Diseases, and Dr. Emily Goodwin, Beacon Program. Together, we can help increase HPV awareness and prevent HPV infections and HPV-related cancers.



Check out the great videos funded by this grant.

https://youtu.be/Ghw9hxg8zto

https://www.youtube.com/watch?v=y-wd_P3-qpA

PEDIATRIC ENVIRONMENTAL HEALTH

DR. JENNIFER LOWRY, CHILDREN'S MERCY HOSPITAL

"Dr. Lowry? I read on the internet that I shouldn't feed my child rice cereal. Is this true?"

Pediatricians love children. Pediatricians love helping children become the best people that they can be. Pediatricians love doing what is needed to make the world a better place for children to be healthy. What pediatricians don't love is being caught unaware of the latest blog, internet chat or media storm regarding environmental health issues. Media and other news outlets often inform parents of possible environmental exposures that can cause harm to children. Unfortunately, not all of the information is true which causes undo concern for parents and confusion to pediatricians who are asked about these effects.

What is a pediatrician or family to do? It is important to realize that we are surrounded by stuff. We, or the people who have come before us, have made choices that puts stuff in our world that are supposed to make things "better" or "easier". Unfortunately, not all of the stuff that we encounter fits both. Cell phones, plastics, better beef, lead in paint, and synthetic athletic fields are just a few examples that may make life easier, but might not (or, definitely not, in some cases) make life better. But, today, everywhere you turn, someone is saying that our children's lives are damaged by the chemicals that we have in the environment. Is this true?

As a toxicologist, I have been taught that "everything is a poison, it is just a matter of the dose". Paracelsus was a Swiss German Renaissance physician, botanist, alchemist, astrologer and general occultist. He founded the discipline of toxicology. He rejected the medical conditions of the times (late 1400s), and pioneered the use of chemicals and minerals in medicine. He is credited with the phrase, "the dose makes the poison", but he is also known to have said, if given in small doses, "what makes a man ill also cures him". Thus, he realized that medicines can be beneficial at low doses but cause harm at higher doses.

But, what about chemicals and metals (synthetic and natural)? What about plants? Is it true that there is no harm at low levels? Well, it depends. Medications that are used to treat illnesses are rigorously tested for safety and efficacy. Chemicals that are used in the environment are not. Alternative medications (dietary supplements) are not.

We know that some medications have benefit at very low doses (microgram) but can cause toxicity at the milligram dosing (1000x the dose). Some medications have no efficacy at the milligram dosing and require much higher doses (grams or 1000x milligram dosing) to have effect.

Why would we expect that plants, supplements, chemicals or metals to be any different? Each chemical is different and has a different profile for efficacy and toxicity. Some chemicals (e.g., botulinum toxin) are toxic at even lower doses. Unfortunately, we are finding out that doses that were presumed safe were really not safe to begin with. Erroneously, "we" thought that because arsenic was "natural" it could be placed in soil as a pesticide. However, arsenic is relatively immobile so anything that grows where it was placed (e.g., rice fields) can incorporate it into the food. Thus, higher levels of arsenic are found in foods that are grown where arsenic was used.

The same is true regarding lead. Pediatricians know that children are not little adults. But, the level that was associated with toxicity in adults was applied to children early in the 1900s. However, it was soon realized that children were more vulnerable and action was required at lower levels. Lead has not become more toxic overtime. Our

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ABOUT THE AUTHOR

Dr. Jennifer Lowry is the Director to the Region 7 Pediatric Environmental Health Specialty Unit which serves Federal Region 7 (Iowa, Kansas, Missouri and Nebraska). She also serves as the Chair to the Council on Environmental Health for the American Academy of Pediatrics. Please look for a follow up survey that will help her and the PEHSU program understand what pediatricians need from the programs in regard to pediatric environmental health.

PEDIATRIC ENVIRONMENTAL HEALTH (CONTINUED)

recognition of the toxicity of lead has changed for us to realize that even low levels of blood lead may result in harm.

So, what do we do? Can a 6 month old eat rice cereal? YES. Should they only eat rice cereal? NO. Does it have to be the first cereal that they eat? NO. Can my teenager have a cell phone? YES. Should they be on it all the time? NO. Should they carry it in their pants or in their bra? NO. Should an infant or toddler play with a cell phone or tablet as their entertainment? NO

How do you find this out? You have great resources available to you to help you sort this out.

• Pediatric Environmental Health Specialty Units. Staffed by health care professionals who are experts in pediatric environmental health. They can help health care providers and the public weed through the data to best inform you on how to keep your children safe from environmental toxins. www.pehsu.net

- American Academy of Pediatrics. Through the Council on Environmental Health, health care professionals can be informed of the latest science on pediatric environmental health and how to incorporate this knowledge into your practice. The public site (www.heatlhychildren.org) is a great resource for families to find out what experts in children advise.
- Poison Control Centers. Staffed by health care professionals, they are best able to help you with acute exposures. Some PEHSUs collaborate with poison control centers. 1-800-222-1222

Lastly, be smart. Do you really need that stuff? Do you really need to throw it away? Reduce. Reuse. Recycle. It is easy to blame others before us for where we are now. But, who will our children blame with what we leave them?

PRACTICE TRANSFORMATION WEBSITES

AAP members seeking guidance transforming their practices to face the rapidly changing healthcare environment can access free resources on the newly revised Practice Transformation Web pages at aap.org/ practicetransformation. The site includes a transformation implementation practice guide, as well as resources and guidance on coding and getting paid, re-engineering pediatric practice, managing patients, and advancing your career in the new healthcare system. For additional information, contact practicemanagement@aap.org.



ORAL HEALTH QUESTIONS

DR. ABIYE OKAH, MD AND DR. LORI HENDERSON, DDS

Dental caries remains the most common chronic infectious disease of childhood1 with 23% of 2-5 year olds and 50% of 12-15 year olds having evidence of tooth decay2 which is largely preventable. The American Academy of Pediatrics (AAP) recommends that pediatricians perform periodic oral risk assessments on all children at preventive visits beginning at 6 months of age.3 The United States Preventive Services Task Force (USPSTF) recommends that all infants and children receive fluoride varnish applications starting at tooth eruption.4 The AAP recently endorsed a White Paper "Oral Health: An Essential Component of Primary Care" which recommends incorporation of preventive oral health care as a component of routine primary care with structured referrals to dentistry.

How is fluoride varnish application reimbursed?

CPT code 99188.

Medicaid reimburses physicians for applying fluoride varnish in 49 states. Missouri reimburses \$13.65 per semi-annual fluoride varnish application for children under 5 years old. Kansas allows 3 applications yearly for all children reimbursing \$17 per application. Commercial insurers are now required to cover this benefit following the USPSTF recommendations.

What is the minimal interval between fluoride varnish applications?

Best evidence recommends fluoride varnish application every 3 to six months http://ebd.ada.org/en/evidence/ guidelines/topical-fluoride

Fluoride varnishes can contain colophony. Can patients with pine nut allergy receive fluoride varnish applications?

Yes. The only reported allergic reaction to fluoride varnish containing colophony found in a Pub Med search was a localized contact stomatitis.

When does a child need fluoride supplements and who should prescribe them?

Prescription of fluoride supplements should be considered when a child has moderate to high caries risk and systemic fluoride exposure is considered suboptimal after a thorough evaluation of the child's diet. Checking a child's source of drinking water for fluoride is crucial and can be complicated when a child spends significant time in several

households, daycare, and school. Ideally, fluoride supplements should be prescribed as part of a comprehensive preventive program in a dental home.

When physicians prescribe fluoride supplements it should be in accordance AAPD, and ADA guidelines. Inappropriate use of fluoride supplements can increase the risk of mild fluorosis developing in the permanent dentition. http:// www.mouthhealthy.org/en/az-topics/f/fluorosis

Is an oral health risk assessment required before applying fluoride varnish?

The USPSTF recommends application of fluoride varnish irrespective of risk. You may find the AAP oral risk assessment tool or AAPD Caries Risk Assessment for Physicians form a useful guide for oral health counseling and dental referral.

How do I get training in oral health and fluoride varnish application?

Multiple on-line training modules exist including;

A National Oral Health Curriculum, Modules 2 and 6. http://smilesforlifeoralhealth.org/

Fluoride Varnish Application Training, Missouri the Department of Health http://mohealthysmiles.typepad.com/Fluoride_Varnish_App_Training.pdf

The AAP website has a wealth of information including contacts for the state Chapter Oral Health Advocate and American Academy of Pediatric Dentistry (AAPD) Public Policy Advocate

Can I delegate fluoride varnish application to clinic staff?

In Missouri, fluoride varnish can be applied by the physician or nurse practitioner and can be delegated to an RN/LPN who has received the required training.

In Kansas, fluoride varnish can be applied by the physician, nurse practitioner, or physician assistant and can be delegated to an RN/LPN who has received the required training.

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ORAL HEALTH QUESTIONS (CONTINUED)

How do we incorporate oral health care into our day to day practice more efficiently?

The Oral Health Delivery Framework proposed by Qualis Health proposes a team based approach to oral care. http://www.safetynetmedicalhome.org/sites/default/files/White-Paper-Oral-Health-Primary-Care.pdf Involve front office staff and medical assistants in gathering the necessary information including caries risk assessment and verifying dental coverage. Complete and document oral health status, provide preventive services and complete structured referrals to the dentist.

How can we improve communication between us and our dental colleagues to facilitate timely referral and feedback for our high risk patients?

Points of Light can help physicians find a dental home for their young patients. Visit the Missouri Academy of Pediatric Dentistry website today to find a participating dentist in your area.

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- 4) Virginia A. Moyer, Prevention of Dental Caries in Children From Birth through age 5 years; US Preventive Services Task Force Recommendation Statement. Pediatrics http://pediatrics.aappublications.org/ content/early/2014/04/29/peds.2014-0483

MOAAP KEY DATES - 2017

January 4, 2017	Legislative Session begins, Jefferson City, MO
January 9, 2017	Gubernatorial Inauguration, Jefferson City, MO
February 2, 2017	MOAAP Board Meeting, Jefferson City, MO
April 13, 2017	Advocacy Day, Jefferson City, MO
April 23-25, 2017	AAP Legislative Conference, Washington, DC
May 12, 2017	Legislative Session concludes at 6:00 PM, Jefferson City, MO
Sep. 16-19, 2017	AAP National Conference & Exhibition- McCormick Place, Chicago, IL

QI OPPORTUNITY

The American Academy of Pediatrics' Institute for Healthy Childhood Weight is now recruiting pediatric primary care practices to participate in the Childhood Obesity in Primary Care project, a brief, innovative, virtual quality improvement (QI) project that aims to improve obesity-related care at well-child visits. Participating practices collaborate with one another and receive education, coaching, and resources from national experts in obesity prevention and treatment.

We have applied for MOC credit and expect pediatricians who meet participation requirements to be able to receive 25 American Board of Pediatrics Part 4 Maintenance of Certification credits and for clinical staff in general to receive up to 9 CME credits. There is no cost to participate,

and all training sessions will be held virtually.

Pediatric primary care practices interested in making practice changes to improve obesity-related health risk assessment are encouraged to review the attached information for more details about the project, including eligibility guidelines and an overview of project offerings. Up to 25 practices will be selected to participate, based on a brief online application. The application period will close upon receipt of 25 eligible submissions or no later than November 23, 2016.

If you have any questions about this project, please contact Corrie Pierce cpierce@aap.org or 847-434-4902 or Jan Liebhart at jliebhart@aap.org or 847-434-7790.

AAP LEGISLATIVE CONFERENCE SCHOLARSHIPS

DEADLINE TO APPLY IS JANUARY 18, 2017

The AAP Legislative Conference will be held April 23-25, 2017, in Washington, DC. The AAP Committee on Federal Government Affairs, the AAP Section on Pediatric Trainees, and the AAP Section on Early Career Physicians are offering several scholarships to AAP members in good standing to cover the cost of registration for the conference. Lodging and travel expenses are not covered by the scholarship. If you are interested in applying for a scholarship, please visit aap.org/legcon and submit it to LegislativeConference@aap.org by Wednesday, January 18. Additional information on eligibility is listed in the application.

PEDIATRICIANS ON SOCIAL MEDIA

Here are some recommended pages to like, users to follow, and hashtags to use. Join the conve43rsation about children's health and well being online!



@MissouriAAP
@AmerAcadPeds
@AAPNews
#tweetiatrician
#PutKids1st



/MissouriAAP /AmerAcadPeds /AAPPeds /AAPFederalAffairs /AAPPubsPutKids1st

FOOD INSECURITY RESOURCES

JESSICA MACKEY, MPH, RD, CSP, LD

In Missouri, approximately 20% of children lack consistent access to food. Informing families and your community where they can locate food assistance can improve food security and overall child health.

In alignment with the American Academy of Pediatrics Policy Statement - Promoting Food Security for All Children, Midwest Dairy Council has created a resource for pediatricians to help clients find access to nutritious food. The colorful handouts are customizable PDFs which can be modified specific to certain resources and food assistance programs available to the family in the hospital or clinic area.

For clients residing in the Kansas City Chiefs region, please consider using the Food Insecurity, MOAAP resource - KC Chiefs handout. For families in other parts

of Missouri, please consider using the Food Insecurity, MOAAP resource - generic handout. The handouts are shown below. If you would like to receive copies of these, please contact Jessica Mackey, Program Manager, Midwest Dairy Association, at jmackey@midwestdairy.com.







Mark your calendars for MoAAP's Annual Pediatric Advocacy Day

April 13th, 2017 in Jefferson City!

Join with fellow providers across the state to educate and advocate.

Reasons to Attend Advocacy Day:

- Advocate for kids in Missouri
- Have fun with pediatricians from around the state
- Learn to talk with legislators in the capitol about issues that affect kids

Take advantage of this chance to be engaged with the MoAAP and to work together with your colleagues in order to promote child health at all levels.

If you are interested in supporting Advocacy Day by attending or if you are unable to attend but would like to support the event through a financial donation, please contact Kelsey Thompson at kthompson@moaap.org for more information.

We look forward to seeing you in April!

EARLY CHILDHOOD MENTAL HEALTH

TIPS AND STRATEGIES CONFERENCE

The Missouri AAP Chapter recently partnered with the Missouri Department of Mental Health, Project LAUNCH and ParentLink to hold a CME conference about early childhood mental health. Through the Missouri AAP Chapter town hall meetings, early childhood mental health was discussed as a great need for our member pediatricians, especially in rural, non-academic practices. The conference was very well attended, with nearly 100 Missouri pediatricians and other primary care and behavior health providers in the audience.

Attendees learned about evidence based parent training programs and positive parenting strategies from Dr. Lisa Spector from Children's Mercy Hospital in Kansas City. Dr. Spector offered a unique perspective as both a fellowship trained child abuse pediatrician and also a developmental behavioral pediatrician. ParentLink, the Missouri Help Me Grow affiliate sponsored Dr. Paul Dworkin from Connecticut Children's Medical Center in Hartford to discuss his successes with early childhood systems building and the Help Me Grow national model.

Dr. Kristin Sohl from the University of Missouri –Columbia shared a new technology driven education service for primary care providers helping to care for children with autism. Show-Me ECHO autism uses video conferencing technology to "move knowledge, not patients" by creating a learning collaborative with primary care providers and a hub of autism specialists at the University of Missouri. (More information can be found at showmeecho.com)

The Missouri AAP Chapter brought together three member pediatricians from different practices around the state to discuss their experiences and challenges with integrating structured screenings into practice. The panel consisted of: Dr. Nathan Beucke from South Providence Pediatrics, an academic practice at the University of Missouri –Columbia, Dr. Claudia Preuschoff from Popular Bluff Pediatrics, a rural practice in Popular Bluff, Missouri, and Dr. Maya Moody from BJK People's Health Centers an urban underserved community health center in St. Louis, Missouri. The panelistS discussed what screening tools they used, how the clinic workflow was designed and also results or feedback from parents and referral organizations.

Last, and certainly not least, Dr. Laine Young-Walker from the University of Missouri and the Department of Mental Health discussed the assessment and treatment of young children with medications and other interventions. Dr. Young-Walker emphasized that the primary treatment option for young children should focus around therapies and assessment of the family system, recognizing that sometimes medication is needed to help the overall progress of the child and family.

Overall, the conference was a great success and a prime example of how collaboration between state agencies and the Missouri AAP Chapter can help improve care and outcomes for Missouri's children.

MEMBERSHIP COMMITTEE UPDATE

DR. LAURA WATERS, MEMBERSHIP CHAIR

Greetings MOAAP members!

Again, thank you to all of you who participated in our Annual Member Survey. We greatly appreciate your feedback and are using the data to improve your membership with the chapter. Our goals as your membership committee are 1) to help you "plug in" with the chapter in the way that best suits you, 2) share CME and MOC opportunities across the state, country and internet, 3) revamp our annual chapter meeting to serve your needs better, 4) collaborate with the Early Career Pediatrician (ECP) committee to host town hall meetings across the state to hear the voice of the membership and report that back to the Board. We want to make sure that this is a chapter that you not only are proud to say is your own, but one you want to invest your time in as well.

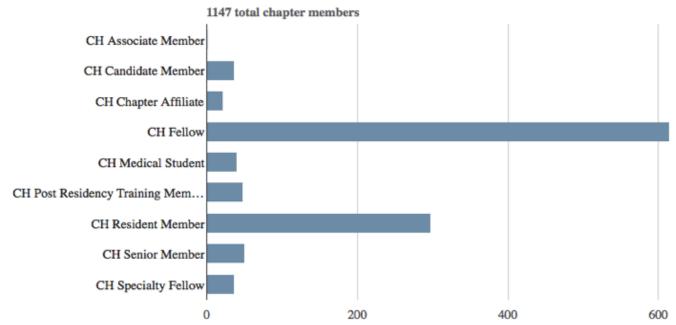
In the early Summer, Dr. Maya Moody, ECP chair, and I met in Rolla for a town hall event to hear from our members in Rolla. It was a fun meeting over some amazing steak and we heard a lot about the need for RESOURCES! Something I think all of us general pediatricians can relate to. Resources for CME, MOC and also the need for mental health resources,

training, etc. Dr. Moody and I heard the needs loud and clear and are actively working to assist our members with these needs. Hopefully a lot of you were able to attend the recent Early Childhood Mental Health: Tips and Strategies Conference in Jefferson City sponsored by the MO Dept of Mental Health. (Look elsewhere in this newsletter for more info). This is just one of the ways we as a chapter can collaborate with other state entities to help provide education and CME for our members

Each month we will be highlighting a MOAAP member through our monthly Member Spotlight email. If you would like to nominate someone for this, please email me at laurawatersmd@gmail.com.

As we in the committees work with the Board to reinvigorate the chapter over the next year we hope that you will: see value to your membership, that you will share that value with your fellow MO pediatricians, NPs and PAs, and that you will join us in not only advocating for Missouri children and being their voice, but make your voice is heard in how we can help you in your day to day practice.

Membership Summary



EPINEPHRINE AUTO INJECTORS

HOW DID WE GET HERE AND HOW CAN WE HELP OUR PATIENTS?

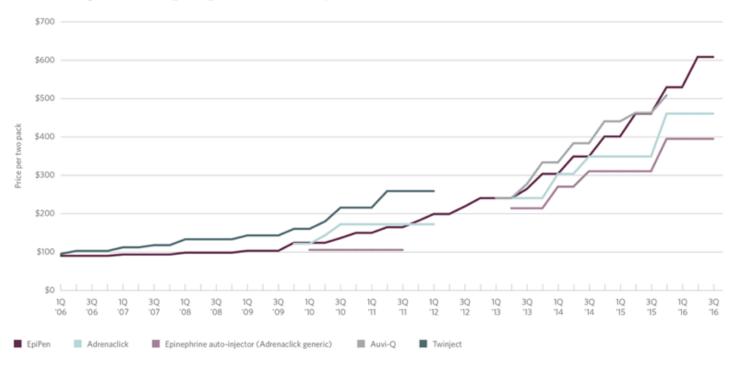
The EpiPen®/EpiPen Jr.® auto-injector is the most frequently prescribed epinephrine auto-injector as it was the first epinephrine auto-injector device on the market which was approved in 1987. In 2003 it was reported that Epi Pen® prescriptions in children had increased 300% although incidence of food allergy did not increase at the same rates (e.g peanut allergy diagnosis increased 66% in the same time span (1). These data suggest that increased awareness of food allergy and changes in recommendations for use of epinephrine auto-injectors such as patients having more than one dose of epinephrine available at all times in multiple locations, are likely a cause of increased Epi Pen® prescribing.

In addition to increasing epinephrine auto-injector prescribing, there has been a significant increase in auto-injector pricing (Figure 1) resulting in a significant economic burden for families and jeopardizing the safety of patients who are unable to afford these devices. Pricing increases

have been most striking for the Epi Pen® and Epi Pen Jr® devices where costs have risen by 574% over the past 11 years. In 2006 Epi Pens were priced at \$90.82 compared to \$608.62 today and sharpest increases were seen after 2014 when prices doubled(2). Within the past five years Epi Pen and other auto-injectors have also has eliminated the availability of single device packages to only double devices packages in the United States. This change coincides with the expert guidelines on food allergy that recommend patients are provided with at least 2 doses of epinephrine to address the possibility of a protracted or delayed allergic response(3).

Alternative epinephrine aut-oinjector devices have received renewed interest given current Epi Pen pricing. Other epinephrine auto-injector devices have included: Adrenaclick®, Twinject®, Auvi-Q®, generic epinephrine auto-injector. However, Twinject® were discontinued from the market by it's manufacturer in 2012. Auvi-Q®, an auto-

Figure 1
Increasing Price of Epinephrine Auto-Injectors



Note: Analysis of list prices is based on wholesale acquisition cost (WAC) data collected by First Databank, http://www.fdbhealth.com/policies/drug-pricing-policy/. WAC represents published catalogue or list prices and may not represent actual transactional prices. For each auto-injector, we report the price of a pack of two 0.3 mg/0.3 ml injection devices. Information on product effective and obsolete dates was reported to First Databank. Data were pulled from Analy\$ource on Sept. 14, 2016.

Source: Analy\$ource as reprinted with permission by First Databank Inc. All rights reserved. ©2016.

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injector device that provided digital voiced instructions for epinephrine administration, was voluntarily recalled from the market by the manufacturer after it was found to possibly deliver incorrect epinephrine doses. An application for an additional generic epinephrine auto-injector medication was rejected by the Food and Drug Administration in early 2016.

Currently, three devices (Adrenaclick®, Epi Pen®, and a generic epinephrine autoinjector) (see Table 1) are available on the market which provide doses of 0.15 or 0.3mg. The FDA does not consider differing auto-injector devices to be therapeutically equivalent therefore in most states pharmacists are not allowed to substitute one auto-injector for another if it is less expensive without a prescription. When prescribing epinephrine auto-injectors to families, pediatricians may consider providing a prescription for alternative devices that may be less. However, providers should be aware of the differences in administration of epinephrine with each device and provide education on the differences in using the devices (see Table 1). Pediatricians should also instruct families to review use of the device with the pharmacist when purchased. One distinct difference between Epi Pen® and other auto-injector devices on the market is the need to recap an exposed needle for other devices. This difference should be discussed with families especially if the device may be used by the child.

On September 7, 2016 AAP President, Benard Dryer, also addressed an additional financial burden on families due to the Epi Pen® relatively short shelf life in a letter to the Commissioner of the FDA. The Epi Pen® is reported by the manufacturer to have a shelf-life of 18 months however given time for distribution of the device the shelf life is typically around 12 months once it reaches the hands of the patient. Dr. Dryer has asked the FDA to explain the rationale for current shelf life limits and to work with the manufacturer to extend current limits. The Epi Pen® manufacturer recently indicated during congressional testimony that a new formulation with an extended shelf life may be available within the next twelve months (4).

Given the more recent public awareness and outcry over EpiPen® pricing, the manufacturer has been under significant scrutiny regarding pricing and addressing the financial burden of this life-saving medication on families. The company reports that they are developing a generic epinephrine auto-injector device which will be about half the price of the brand version. The company also raised their EpiPen® rebate cards to help with out of pocket expenses for the device related to insurance co-pays from \$100 to \$300.

Until more significant changes are made to EpiPen® pricing, device longevity is improved, and less expensive alternative devices are available, pediatricians will need to work with families to help ease their financial burden.

Tips to help families with the financial burden of epinephrine auto-injectors:

- Consider providing families with more than epinephrine auto-injector prescription to allow them to purchase the device that is least expensive for them
- Provide education to families on the use of each injector type and instruct them to ask the pharmacist for training on using the device when the pick up their prescription
- Ask families to check the expiration date on their epinephrine autoinjector device when they pick up new prescriptions at the pharmacy to make sure they are receiving a device with a reasonable expiration date.

Families should be made aware of Rebate programs offered by manufacturers and Patient Assistance Programs (information may be found at manufacturer websites) as well as other online coupons that may be available (e.g. GoodRX)

References:

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TABLE 1

Product	Available doses (dosing)	Appearance of Device	Built in Needle Protection	How to use the device
Epi Pen®/Epi Pen Jr®.	0.15mg (15-30kg) 0.3mg (>30kg)	Follow: Associate to Cong (who lefel) removed from carrier toles Follow car for cap But safety recest Control and Associate toles Control and Associate toles	Yes	*After removal from the carrier tube by flipping the green (Epi Pen Jr®) or yellow (Epi Pen®) cap, remove the blue safety release, swing and push the auto-injector firmly into the middle of the outer thigh until it 'clicks', hold firmly in place for 3 seconds. Also see online instructions.
Adrenaclick [®]	0.15mg(15- 30kg) 0.3mg (>30kg)	Labeled and cape to purchase the part of t	No, user must carefully recap after use	*Pull off gray tips on both ends of the device, to reveal a red tip at one end, put the red tip against the middle of the outer thigh, press down until the needle enters the thigh, hold in place while counting to 10, remove the device from the thigh and check for an exposed needle (if not visible the dose was not delivered). Also see online instructions. **
Epinephrine injection, USP (generic for Adrenaclick®)	0.15mg(15- 30kg) 0.3mg (>30kg)	PALL SAND SAND SAND SAND SAND SAND SAND SAND	No, user must carefully recap after use	*Same as Adrenaclick® instructions above. Also see online instructions. **

http://adrenaclick.com/how_to_use_adrenaclick_epinephrine_injection_USP_auto_injector.php

http://www.epinephrineautoinject.com/how_to_use_epinephrine_injection_USP_auto_injector.php

^{*}When administering to a child it is recommended to hold the leg in place

^{** &}lt;a href="https://www.epipen.com/en/about-epipen/how-to-use-epipen">https://www.epipen.com/en/about-epipen/how-to-use-epipen

MOCARE GET OUT THE VOTE (GOTV)

KATIE BLOUNT, DO, AND KALEEN LONG, MD, AND MOCARE COLLABAROATIVE GROUP

The four pediatric residency programs in Missouri came together to form the Missouri Collaborative for Advocacy and Residential Education (MOCARE) track with participation of selected residents from each program as well as faculty mentors. As a group, MOCARE launched a fun friendly voter registration drive competition among the 4 pediatric residency programs to participate in the AAP's Get Out the Vote (GOTV) efforts. Dr. Katie Plax put together a power point that was shared with the group and said, "Partnering across the state to vote for kids is truly a remarkable accomplishment. By sharing resources and ideas we can accomplish so much together. This strategy is so important for the health and wellbeing of Missouri children and families. I am so impressed with the up and coming leadership in our residency programs and how much these resident leaders can do together."

Residents at each program began by focusing on promoting voter registration of residents. At Washington University and Saint Louis University programs, representatives volunteered from each class to help in the efforts. Reported success included registering first time voters as well as helping residents who had recently moved to begin residency to update their registration. Dr. Joy Hanson said, "we had several people text us the last day of online voting registration and say thanks for the reminder and that they signed up in the last few hours!." Washington University also hosted a luncheon with the League of Women Voters and plan to dedicate protected education time on November 8 to allowing residents to go to the polls.

At the University of Missouri, attending physicians were included in the efforts, turning it into a friendly competition between residents and attendings. Participants were encouraged to utilize the AAP's #VoteKids website to learn be advocates for kids during the election as well as vote.org to register or request absentee ballots. At the end of the competition, 97% of eligible voters reported being registered, including 100% of the resident physicians.

At Children's Mercy Hospital in Kansas City, Dr. Kristin Streiler led efforts to promote participation in advance or absentee voting. She gave a ten minute presentation to residents and faculty and said, "Many residents at the meeting were unaware that advance or absentee voting was available, and 16% of present residents completed advance voting applications after the meeting (8/48). Participating in advance or absentee voting would allow residents to vote on their own schedule rather than voting in person on Election Day, which may increase voter turnout among residents who choose to participate in advance or absentee voting."

"The GOTV projects brought together all pediatric residency training programs in Missouri towards a common goal of voter registration and participation among our fellow physicians and the families we serve through the #VoteKids campaign for the upcoming election," said Dr. Kristin Koehn from the University of Missouri. "The activities also provide residents with hands-on advocacy experiences that we hope to continue as a statewide group in the future."



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