Lead Exposure in Children: Community-based Approaches to Address a Pervasive Issue

NEW PENNSYLVANIA PROGRAM to Help Curb Opioid Misuse

VALUING VACCINATIONS ACROSS GENERATIONS
A New Way to Think About Vaccinations

INTEGRATING ORAL HEALTH AND PRIMARY CARE
Promoting Long-Term Health Outcomes for Rural Residents
“Better Care.” Many of us have heard stories or have personal experience with a health care episode in which the care was less than optimal. Mine involved a cardiologist who wanted to do a stress test on my 88-year-old father-in-law who been on kidney dialysis for over a year. Why order a test that is potentially harmful with the likelihood that if something was found, the best option would be to do nothing? Our volume-based payment system has encouraged this unnecessary and potentially harmful care. Evidence-based practice will deliver us not only “better care” but the greatest value.

For those of us who are champions of rural health, the goal of “Healthier People” has been a particularly challenging one. Current statistics show that large segments of our rural population are older, sicker, and poorer than the population at large. The Pennsylvania Office of Rural Health (PORH) has provided a number of our rural hospitals and communities with a tool to begin the journey to a healthier population. The Healthy Communities Institute system provides hospitals communities with an online resource to help communities measure and target their health disparities and provide nationally vetted best practices for health improvement (see porh.psu.edu). This tool may prove to be extremely valuable for those rural hospitals that decide to participate in an exciting new initiative announced by the Pennsylvania Department of Health. It was recently announced that Pennsylvania was successful in its application for a CMS State Innovation Model Initiative Model Design grant. The Health Innovation in Pennsylvania (HIP) plan has three primary strategies: 1) accelerate the transition from volume- to value-based payment models; 2) achieve price and quality transparency; and 3) redesign rural health care delivery.

PORH is excited that, for the first time, rural health is a stated priority for the commonwealth and a Rural Health Redesign Center at the state level is in the planning stages. Through a global budget model, rural hospitals are being encouraged to participate in a new transformation plan that will reward them for improving population health outcomes, improving care management, and increasing operational efficiency. Rural hospitals, by delivering community-appropriate services and demonstrating improved outcomes, improving care management, and increasing operational efficiency, rural hospitals, by delivering community-appropriate services and demonstrating improved care, will be able to invest in the health of their communities helping to achieve the goal of “Healthier People” in our rural communities.
When lead was removed from gasoline and paint several decades ago, most people stopped worrying about lead exposure in children. What once was a great concern—adverse neurological and physical effects of lead poisoning—became a back-burner issue for parents, physicians, caregivers, teachers, and legislators.

“For some reason, perhaps because so much had been done to abate children’s exposure to lead, the issue just wasn’t important anymore,” said Caryl Waggett, Ph.D., Healthy Children associate professor in the department of environmental science at Allegheny College in Meadville, Pennsylvania. “Compared to other childhood issues, it seemed perhaps not as important since those children who were being tested were shown to be below the Centers for Disease Control and Prevention (CDC) threshold. And since most of the kids being tested were in urban areas, many thought it was only an urban problem.”

Head Start children, however, are required to be screened for lead exposure because they are considered at risk, regardless of whether they are from rural or urban areas. The program requires that children be screened within 90 days of enrolling in the program. For migrant children, there is a thirty-day requirement.

“Lead screening is one of the many screenings Head Start is required to do, along with vision, hearing, developmental, anemia, and others,” explained Amy Requa, MSN, CRNP, health consultant and state oral health coordinator for the Pennsylvania Head Start Association. “We follow the federal EPSDT (Early and Periodic Screening, Diagnostic, and Treatment) schedule, which requires that a child be screened for lead at twelve months and again at twenty-four months.” EPSDT was developed to ensure that underserved children and adolescents receive appropriate preventive, dental, mental health, and developmental, and specialty services.

“If we don’t have written documentation that a child has been screened for lead, we find a way to get that screening done. We know it can be difficult for low-income families to get the screenings done themselves, so we provide it on-site or through other channels,” Requa continued, adding that Head Start partners with other organizations to meet the needs of the children it serves. Ninety-five percent of Head Start children are low-income and on Medicaid or CHIP, the Children’s Health Insurance Plan, which also requires lead screening.

When the Head Start program serving Schuylkill and Carbon counties (as well as other areas in Pennsylvania and New Jersey) lost its lead screening provider, St. Luke’s Hospital - Miners Campus in Coaldale, Pennsylvania, stepped in to help.

“Pinnacle Health had been providing screening to Head Start for years but lost their funding,” said Tracie Mercado, deputy of health and disability services, Head Start, Pathstone Corporation—a not-for-profit community development and human service organization providing services to low-income families and economically depressed communities in several states.

“We were in a bit of a jam, so we reached out to physicians’ offices and other organizations to increase our partnerships and see what we could do to provide the required lead screenings. We were able to form a great partnership with St. Luke’s,” said Mercado, adding that they see higher lead levels in places where houses are older. “In places like Coaldale and Lehighton, a lot of the homes still have lead-based paint on the walls, and many lower income families are using mini-blinds that have lead in them.”

Tara Stauffenberg, center administrator for Pathstone Corporation, took the lead in forming a sound partnership between Head Start and St. Luke’s Miners Campus. “Part of my role was to meet with St. Luke’s, along with our health partners, and form a relationship,” explained Stauffenberg.

“We expressed our needs and they’ve been really great with trying to meet them. In Carbon County last year, there were roughly 50-60 children who still needed screenings. Because of St. Luke’s, we only have four who still need them.”

“When the Affordable Care Act (ACA) was passed, we conducted a community health needs assessment to find out what our community needed and find local partnerships,” said Kim Sargent, vice president of patient care services at St. Luke’s. “We looked at Carbon and Schuylkill counties and thought of ways to improve access to care, promote healthy lifestyles, promote mental and behavioral health—which is where our lead testing came in—and improve child and adolescent care.”

“Head Start approached us to see if we could partner with them to provide lead testing for students who couldn’t afford their own,” added Lauri Price, community health nurse navigator for St. Luke’s. “Many rural families have limitations related to transportation, so we decided to take the testing lab to the school.”

“The kids are used to seeing me at the school because I do a lot of activities with them, so I was able to bring a lab phlebotomist with me,” continued Price. “We were able to give them their lab work right there. Of the children for whom we were able to obtain consent, all were found to be negative for lead.”

**ABATING LEAD ON THE HOME FRONT.**

In Crawford County, lead exposure in children was a great concern for Caryl Waggett as well. After examining the data related to rural lead exposure and vetting best practices for home lead screening, she concluded that working one-on-one with families showcased the best results. In response, she decided to start a program called Healthy Homes-Healthy Children to offer the service for free.

“We started looking for mold and then expanded the conversation around lead,” she explained. “We did all kinds of outreach to build awareness—county fairs, health fairs, open houses at the schools. We worked with Head Start, WIC, local non-profits—anything we could get our hands on as a mechanism to legitimize the program.”

By Susan J. Burlingame

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Nutrition, Waggett explained, is another critical way to reduce lead poisoning. “There is a huge correlation between how much calcium is in your blood and lead exposure. Lead decreases calcium levels, so if there is low calcium already, lead gets embedded in bone structure, which can affect neurological development. Every neuron, when it transmits, communicates through a calcium-related channel, so if that calcium is reduced, development is affected. Every neuron, when it transmits, communicates through as many educational channels as possible, lead exposure statistics can dramatically improve.

“We are basically disabling our poorest populations and preventing them from long-term stability—long-term job opportunities, success in school—because of this problem,” emphasized Waggett. “This environmental exposure is so easily preventable and education is the number one piece of that, because none of what is required to reduce exposure is hard to do. Reducing lead exposure is not the sole way to break the cycle of poverty, but it’s a major contributor. It’s an easy fix, but it requires a massive effort.”

“Head Start’s goal is not only to screen children for lead exposure but also to provide the follow up,” concluded Kequa. “We want to ensure that every child with elevated levels receives the care he or she needs—and ultimately, we want to prevent lead poisoning altogether through home remediation and education. Prevention is the gold standard we are all seeking.”

For more information on lead and lead screening, visit health.pa.gov, pathstone.org, sluhn.org, or sites.google.com/a/allegheny.edu/bhhc. In October 2016, the Pennsylvania Head Start State Collaboration Office facilitated a panel presentation called “Get the Lead Out Pennsylvania! Efforts to Help Ensure Children are Safe” at the annual Early Childhood Education Summit held in State College, PA.

Waggett and her team of students followed Environmental Protection Agency protocols, trained themselves to do home assessments and soil testing, and did the lab work themselves. “We needed to be careful because they think it costs a fortune to completely remediate lead,” said Waggett. “We were able to work with families and develop a management strategy that was super low-cost and would help them find easy ways to manage their households and reduce exposure for their kids.”

Waggett said it is quite easy to make a big difference, citing simple solutions such as using wet wipes on the surfaces children use the most until you don’t see any dirt left on the wet wipe or putting duct tape on low painted windowsills where kids tend to chew.

“Children should be tested at ages one and two and then again before seven. Everyone should be aware of the risks, and everyone can take steps to reduce lead exposure in their homes and yards.”
Integrating Oral Health and Primary Care: Promoting Long-Term Health Outcomes for Rural Residents

Tooth decay is a 100 percent preventable disease, and we have a great deal of evidence demonstrating the importance of oral care and its role in systemic well-being,” said Sean Boyens, DMD, director of interprofessional practice at the DentaQuest Institute, located in Westborough, Massachusetts. “From the time the first tooth emerges, a child should be receiving fluoride varnish—a simple step that can prevent a variety of future health issues.” The DentaQuest Institute provides clinical care and practice management solutions that help health care providers improve oral health.

“For people living in rural areas, it can be hard to find a dentist who will see a child before age three,” explained Kelly Braun, RDH, MSDH, dental delivery systems coordinator at the Pennsylvania Office of Rural Health (PORH). “That’s why we have been working with our partners in dental care and primary care to find ways to provide not only fluoride varnishes to babies but also risk assessment and referral mechanisms.” Seeking to address the disparities in rural areas across the country, the DentaQuest Institute launched the Medical Oral Expanded (MORE) Care Collaborative to provide primary and secondary preventive oral health services in primary care medical offices to underserved populations and to test optimal patient-centered referral systems between primary care and dental care teams. Beginning in South Carolina and now in Pennsylvania and Colorado, the Collaborative is coordinated through the respective state’s offices of rural health.

“The younger a child is when he or she receives preventive oral health care, the better chance that child has of leading a healthier life and having positive outcomes.”

Sean Boyens, DMD

MORE Care in Pennsylvania will focus on identifying seven to ten rural health clinics in dental provider shortage areas, providing resources and training, and building a dental referral network. As of September 2016, nine clinics have been identified; the first learning session was held in the fall of 2016. Two additional learning sessions, presented by expert faculty from the commonwealth, will be held over the course of a year, after which the program will be evaluated, modified, and possibly rolled out to more providers.

“This initiative is both a learning process and a journey,” explained Braun. “We hope clinics will be open to changing some of the things they’ve been doing in their offices related to oral health.” And, she adds, “We have had a great, team-based approach with the DentaQuest Institute. By combining the knowledge they gained in South Carolina with ours, we’ll find what works best for Pennsylvania.”

While the DentaQuest Institute is providing financial support for MORE Care, Boyens looks at it differently. “The DentaQuest Institute does not really look at itself as a funder but more as a partner,” he asserted. “We come in and offer our expertise, knowledge, and resources to facilitate what our partners need. We help set up the infrastructure they need to have a successful program,” he said, adding that the DentaQuest Institute is working with Pennsylvania in part because of its strong office of rural health.

“The people at PORH care about working with rural communities to make them better. They want to drive change, and they are going to help us develop a model that can be disseminated on a national level.”

The goal through MORE Care, she explained, is not only to apply preventive varnish but also to encourage primary care providers to “actually look in patients’ mouths. Every time they come to their pediatrician for a well-child visit, an oral health risk assessment should be completed and fluoride varnish, anticipatory guidance, and a dental referral also should be provided.”

“MORE Care is also about increasing awareness,” Boyens stressed. “We want parents and caregivers to understand they can make a difference in their own health and systemic, long-term well-being, as well as that of their children.”

Kelli Braun, R.D.H., M.S.D.H., PORH’s dental systems delivery coordinator, is leading the implementation of the MORE Care Collaborative in Pennsylvania.

Department of Health Publishes State Health Improvement Plan

The Pennsylvania Department of Health announced in July 2016 the publication of the Pennsylvania State Health Improvement Plan 2015-2020 (SHIP). The plan is the culmination of a two-year public process that began in 2014 and was developed using Public Health Accreditation Standards for SHIPs. The SHIP was developed by the Division of Plan Development (Bureau of Health Planning) in partnership with broad representation of public health system stakeholders across the commonwealth, other state agencies, and representatives of Department of Health programs. Participants in this public health planning process were engaged to identify critical Pennsylvania health improvement priority areas to be addressed in Pennsylvania over the next five years through state-wide collaborative and strategic efforts.

The three Pennsylvania SHIP health priorities are:

- Obesity, physical inactivity, and nutrition;
- Primary care and preventive services; and
- Mental health and substance use.

As a five-year strategic plan, SHIP establishes population health status goals and objectives and includes recommended strategies to achieve those goals and objectives. The SHIP also identifies lead and collaborating agencies and organizations in addition to the Department of Health, which will implement SHIP strategic initiatives.

An Advisory Committee of stakeholders and department staff guided the development of SHIP. Three task forces of experts representing each of the three health priority areas created the objectives and strategies recommended in the SHIP. The Advisory Committee and task forces will guide the five-year SHIP implementation. The Division of Plan Development in the Bureau of Health Planning will continue to coordinate this state-wide health improvement initiative. Progress toward achieving objectives will be measured utilizing data collected by the Department of Health and by other organizations and agencies.

The SHIP can be accessed at the Pennsylvania Department of Health’s website at health.pa.gov/Your-Department-of-Health/Offices-and-Bureaus/Health-Planning/Pages/State-Health-Improvement-Plan.aspx.

For further information on the SHIP, please contact Mark Milliron, public health program administrator, via e-mail to mamilliron@pa.gov or by phone at 717-772-5290.
A Medical Student’s Perspective

By Ashley Baronner

The value of the fourth year of medical school has been a topic of debate in the past few years. The decision to make medical school a four-year course of study was determined by the 1910 Flexner Report. Certainly a lot has changed in medicine since 1910, but the medical school curriculum has been slow to evolve. However, curtailing the clinical exposure of medical students does not seem like the most sensible modification. Although my fourth year has just started, I feel that I have acquired many practical skills and refined medical knowledge applicable to my plans to pursue a career in internal medicine.

I began my fourth year of medical school with a sub-internship in internal medicine, designed to simulate the demands and expectations of an internal medicine intern. Third-year was all about learning the ropes of the hospital, writing subjective, objective, assessment, and plan (SOAP) notes, and communicating effectively with patients. The third year was also the time to develop a solid clinical knowledge base and physical exam skills for the diagnosis and treatment of disease. However, fourth-year students are expected to have a comprehensive knowledge of the "basics" of medicine and act as a dedicated team member. Despite the higher expectations, the overall experience was much more enriching than my previous experience in internal medicine. The learning curve is incredibly steep as a third-year medical student. Having climbed this ascent, I felt confident in my abilities and strived to take ownership of my patients. Rather than focusing ongrasping the fundamentals, I was able to apply my knowledge effectively and communicate more confidently with colleagues and patients. I also discovered the joys of teaching the third-year medical students on our team. I was able to put the phrase “see one, do one, teach one” into practice. Furthermore, I was able to confirm my passion for internal medicine and identify qualities in senior team members that I hope to emulate as a physician.

Among the skills I acquired was how to approach difficult conversations with patients. These conversations ranged from discussing code status to explaining a poor prognosis to my patient and their family to issues surrounding discharge from the hospital. These skills are essential for the year when I will serve in my internship, but not always prioritized during the third year. Furthermore, I developed a better grasp of when to call a rapid response team and systematically evaluate the reason for a patient’s decline. I learned to make decisions independently with the supervision of my residents. These are some of the most valuable qualities one must have before intern year. Third-year is not sufficient time to gain exposure to all of the clinical specialties and develop proficiency in one field. Although there are very few exams during the fourth year, it is the perfect time to learn independently about a particular field of medicine. Reading journal articles and applying evidence-based medicine to patient care is incredibly valuable.

In the coming months, I will have rotations in outpatient family medicine, hematology, oncology, advanced physical diagnosis, emergency medicine, and critical care. These focused rotations were not covered during my third year, yet they are very applicable to internal medicine. Although I have decided on internal medicine for residency, there is so much more to explore within this broad area of medicine. I am still deciding if I would prefer to focus on primary care, hospitalist medicine, or pursue a fellowship in a subspecialty. The fourth year of medical school allows for this type of exploration. Residency is an incredibly demanding time with many mandated requirements. I feel that the fourth year of medical school is essential for academic growth and refinement of career goals. In just one month, my patients, attending physicians, and residents have deepened my passion for internal medicine. As I begin the process of matching into a residency, I don’t plan to waste any time improving my knowledge and clinical skills.
Valuing Vaccinations Across Generations: A New Way to Think about Vaccinations

As professor of intergenerational programs and aging at Penn State, my job is to conduct research, develop curricular resources, and provide statewide leadership in developing and evaluating intergenerational programs. I focus primarily on those intergenerational initiatives that meet real needs, for example, by improving health and well-being across the lifespan; strengthening families; and helping to build more cohesive, caring communities.

A new and unique intergenerational program called Valuing Vaccinations Across Generations has been developed. This campaign was launched in 2016 by Generations United in partnership with The Gerontological Society of America and the American Academy of Pediatrics, and with funding from Pfizer. The primary goal is to heighten public awareness of the importance of vaccinations for individual, family, and community health. This is done through a media campaign and educational tools and resources designed to encourage intergenerational conversations within families and among different generations with regard to getting vaccinations.

The campaign includes:

- An intergenerational discussion guide for grandparents, families, and grandfriends;
- Memes and brief video testimonials from people who lived through epidemics;
- Traditional and social media toolkit; and
- An informational infographic depicting the value of vaccinations across the ages.

To be honest, my first reaction upon learning of this campaign was one of surprise. My thinking was that there are already ample opportunities and resources for people to gain information and access to needed vaccinations. I wondered, “What value is there to adding an intergenerational component to a public health education campaign focused on immunizations?” In other words, “Why approach the challenge of educating the public about vaccinations from an intergenerational angle?”

However, as I learned more about this campaign, it became clearer to me that it does make a significant contribution to the field of vaccination education and awareness.

One of the most compelling arguments in favor of vaccinations is history. Here I am referring to the history of older adults’ personal experience with regard to their encounters with diseases that now can be prevented through vaccination.

For example, in 1952, during the worst recorded polio epidemic in U.S. history, there were over 57,000 reported cases of polio. In the few years following the licensing of the polio vaccine in 1955, the incidence of polio in the U.S. fell by 85-90 percent. For younger generations who are far less likely to have relatives, friends, and neighbors inflicted with polio, this is just a neutral, cold fact. However, it becomes more meaningful when listening to the testimony of older adults who have witnessed the destruction that this disease can do to individuals, families, and communities. Such exposure to firsthand accounts of the physical and emotional toll of living with diseases and illnesses that can now be prevented through vaccine programs helps younger generations gain increased awareness and appreciation of the importance of vaccinations.

Generations United’s unique perspective advocates for vaccinations as a part of the commitment of caring between generations. The campaign raises awareness of how certain illnesses that can be passed between older and younger generations (e.g., flu, pneumonia, and whooping cough) are preventable with immunizations.

By Matt Kaplan, Ph.D., Department of Agricultural Economics, Sociology, and Education, The Pennsylvania State University
Pennsylvania Small Rural Hospital Program Receives Quality Excellence Award

For the second year in a row, the Pennsylvania Medicare Rural Hospital Flexibility Program received the Medicare Beneficiary Quality Improvement Project (MBQIP) Certificate of Excellence Award in recognition of outstanding critical access hospital (CAH) state quality reporting and performance. The award was presented on July 20, 2016 at the annual Medicare Rural Hospital Flexibility Program Meeting in Bethesda, Maryland and was given by the Federal Office of Rural Health Policy (FORHP) in the U.S. Department of Health and Human Services. Health Resources and Services Administration. Lawrence Baronner, rural health systems manager and deputy director at the Pennsylvania Office of Rural Health (PORH), accepted the award on behalf of the state’s fourteen CAHs.

MBQIP is a quality improvement activity under the Medicare Rural Hospital Flexibility grant program of FORHP. The goal of MBQIP is to improve the quality of care provided in CAHs by increasing quality data reporting by CAHs and then driving quality improvement activities based on the data. MBQIP is a voluntary reporting system that includes quality and satisfaction measures from CMS Hospital Compare plus a CAH-specific Emergency Department Transfer Communication measure set. Pennsylvania was one of the first four states to have 100 percent participation in MBQIP.

County Health Rankings: What Works for Rural Health

The Robert Wood Johnson Foundation issued a follow-up to their 2016 County Health Rankings, outlining specific policies and programs rural communities can implement to improve health and wellbeing. The report includes details about finding and choosing the right solution for communities; what’s working to prepare and strengthen local workforces, improve diet and exercise, and reduce injuries; and a discussion of the many factors that influence health. Strategies that have been studied and deployed in rural communities are emphasized. The report can be accessed at countyhealthrankings.org/roadmaps/what-works-for-health.

What is Health Innovation in Pennsylvania (HIP)?

Many states are exploring innovative approaches to transform health and health care delivery. The commonwealth’s Health Innovation in Pennsylvania (HIP) plan is a comprehensive, multi-stakeholder statewide initiative to improve the health of all Pennsylvanians by redesigning the way we pay for, deliver, and coordinate health and health care services. The plan will include strategies to advance population health, health information technology, and workforce development. Led by Governor Wolf, the HIP plan, once implemented, will lead to better care, smarter spending, and healthier Pennsylvanians. To view the Health Innovation in Pennsylvania plan, access health.pa.gov/Your-Department-of-Health/innovation/Pages/Innovation/What-is-Innovation.aspx#.V5_DMKKe4kw.

Rural Health Leadership Radio Launched

In August 2016, Rural Health Leadership Radio (RHLR) went on the air, the very first radio show of its kind. RHLR is a weekly podcast featuring leaders working in rural health; leaders of hospitals, clinics, networks, companies and communities. For more information or to express interest in being a guest, contact Bill Auxier, Ph.D., host of RHLR, at bill@billauxier.com or visit rhlradio.com.
Upcoming Events, con’t.

**May 9, 2017**
Rural Medical Education Conference
San Diego, CA
Sponsored by the National Rural Health Association
ruralhealthweb.org/go/events/rural-medical-education-conference

**May 9-12, 2017**
40th Annual Rural Health Conference
San Diego, CA
Sponsored by the National Rural Health Association
ruralhealthweb.org/go/events/39th-annual-rural-health-conference

**May 9-12, 2017**
Rural Hospital Innovation Summit
San Diego, CA
Sponsored by the National Rural Health Association
ruralhealthweb.org/go/events/rural-hospital-innovation-summit