Celebrando Nuestra Salud: 10/08/2017

The Pediatric Society hosted a kids table at Celebrando- a free community health fair hosted for Sacramento's Hispanic population.

Society members brought tools like stethoscopes, tuning forks, reflex hammers and blood pressure cuffs to show to the kids and teach them what they are used for. The kids got to listen to their own heartbeats and learn how to elicit reflexes. Members also talked to children about what unhealthy diets can do to the heart and vessels using real donated hearts and aortas.
Sacramento Children’s Receiving Home’s Birthday Carnival: 11/15/2017

The Pediatric Society helped the Children's Receiving Home of Sacramento to put on a special carnival to celebrate the institution’s 72nd birthday. The carnival was filled with many activities and had lots of prizes for the kids! You can learn more about the Receiving Home and its mission on its website: https://www.crhkids.org/

My summer experiences with children with Type 1 diabetes

I will never forget my week as a summer camp counselor at Camp "Wana Kura". Though these children had to deal with the struggles of diabetes, they were all so positive and each left a lasting impression. I learned about blood glucose monitoring, insulin administration, and the social and psychological struggles these children had to endure while in school, playing sports, and trying to enjoy life as a kid. As a teaching assistant in endocrinology, I had read about diabetes symptoms and treatment, but now was able to witness it first-hand. My interest in the field grew, and this past summer I investigated the relationship between blood glucose monitoring frequency and glycemic control in children with Type 1 diabetes. Blood glucose monitoring (BGM) is a fundamental component of type 1 diabetes (T1D) management and is used to make decisions about insulin administration, exercise management, and diet intake. More frequent daily BGM has been associated with lower A1c levels in persons with T1D. In data from >20,000 persons enrolled in the Type 1 Exchange Clinic Registry, more frequent daily BGM was strongly associated with lower A1c (p<.001) across all age groups and in both insulin pump and injection users [1]. In data from >26,000 youth with T1D more frequent daily BGM was significantly associated with lower A1c.) [2]. Recommended target A1c values in children <18 years is <7.5%, whereas in adults it is <7.0% [3]. However, only 17 to 23% of youth below 17 years are meeting the A1c target, indicating a need for better A1c management techniques [4].

Yasaman Pirahanchi, M2
Our goals were to compare daily frequency of BGM ascertained by 3 different methods in youth with T1D, and to determine the relationship between BGM frequency and A1c. We found that more frequent BGM frequency was associated with lower A1c overall ($r=-.31$ to $-.40$, $p<.0001$ for all) with similar associations shown across age ($<13$ vs. $\geq13$ years), sex (male vs. female), diabetes duration ($<5$ vs. $\geq5$ years), and insulin regimen (injections vs. pump). As BGM is a modifiable component of diabetes self-management, it warrants continued targeting in efforts to improve glycemic control in youth with T1D. Being able to experience pediatric endocrinology both first-hand as a camp counselor and through clinical research was a true blessing, and gave a tangible experience into this amazing field.

Sources:
3. American Diabetes Association (ADA) and the International Society for Pediatric and Adolescent Diabetes (ISPAD)

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Pediatric Puzzles Conference: 12/02/2017

Society members travelled to UCSF to attend Pediatric Puzzles- an interactive case-based conference hosted by the American Academy of Pediatrics. Students learned how to work with patients with different pathologies, including food allergies, vitamin D deficiency, strabismus, and certain skin lesions, as well as when to give or not give anesthesia to high-risk patients.

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Little Money, Big Medicine

By Dr. Floyd Culler

Over many years of medicine watching, I have come to the conclusion that children are not accorded the financial health support and overall respect they deserve. So, I guess it is not surprising that U.S. pediatricians, the primary medical caretakers of our young, are also not accorded their proper economic and professional esteem either. Children are our country’s most precious natural resource, the generation that will succeed, lead and care for us. They are graced with natural gifts of beauty, dynamic developmental physiology and great longevity, but, through no faults of their own, children are politically and financially disenfranchised. Our children need to be provided with adequate funding to enable their proper medical care, nutrition, protection and education. But this is not happening.

One of five children lives below the poverty line, making up 43% of our nation’s 97 million poor. In fiscal year 2015-16, Medicaid healthcare spending for these low income children totaled just 19% of Medicaid dollars. This is "little money"
compared to the 32% of Medicaid dollars spent on only 4% as many low income healthy U.S. adults during this same year. To make this disparity even worse, Congress recently failed to renew the Children’s Healthcare initiative, a bipartisan insurance support legislation that had been in place since 1997 helping provide low cost health insurance to 9 million children. Little regard was voiced for the children affected by this action, little attention given to the lost revenues by hospitals caring for children, and little concern expressed for pediatricians and family medicine providers of children’s healthcare, already the lowest paid physicians, who will likely see their revenues decline.

Pediatricians, torchbearers of medical and societal efforts for children, have long suffered “little people little money” without much hope for financial parole. A 2017 Medscape survey of physician salaries again showed pediatricians at the bottom of the physician salary scale, averaging $20K less than the average salary of other primary care physicians, which is $222K, and $314K below the average specialty salary, which is $316K. The Medscape Physician Compensation Survey for 2017 is summarized below:

![Graph showing average annual physician compensation](image)

This salary disparity is not related to work effort. Pediatrician weekly work hours are consistent with those of other full time physicians, averaging about 59 hours of work per week. In fact, if they finish residency at age 29, the average U.S. physician will spend 36 years working hard – almost 1 ½ times more hours than most other Americans. Relatively high annual salaries for those in the medical profession are in large part justified by their long and rigorous career training requirements and simple hard work. Pediatricians are just paid littler money.

Why then should a medical student go into Pediatrics? The joy of being around children and other aspects of non-economic job satisfaction must explain why physicians are attracted to pediatric careers. In a 2013 Medscape survey of 29,000 U.S. physicians, pediatricians were near the top of specialties in career and overall life happiness (up there with Derm, Ophtho, and Allergy/Imm) while also reporting low problems with burnout. In 2013, all primary care medical careers except pediatrics were characterized by very high reported burnout rates. However, by 2017, pediatrician burnout had increased greatly to tenth highest of the specialties. This burnout increase was the greatest of any specialty over the years 2013 to 2017 according to the 2017 Medscape Burnout Survey. Pediatricians cited worries due to compensation, economic pressures and school loan debt repayment as significant stressors. Perhaps little money is taking its toll.

In spite of low relative pay, pediatricians relatively happily serve their patients while performing important socio-medical functions. Here are just a few examples.

1) By touting the concept that each vaccine dose prevents a possible death or disability, pediatricians enable children and the public at large to benefit from the immense power of immunizations.

2) By employing the art of strategic word choice, pediatricians daily provide advise such as “fever is a symptom and not a disease,” “every cough doesn't need a medication,” and, my favorite, “in most cases diarrhea goes away with time.” These protect us all from the rise of antibiotic resistant bacteria and the problems they create.
3) By trying to ensure that children are protected from exposures to toxic chemicals, physical injury, infections, poverty, second hand smoke, malnutrition and child labor, pediatricians help provide children with a healthy environment in which to grow, develop, play and learn. The majority of adult diseases are born of dietary or chemical abuse, whereas childhood disease is largely devoid of such baggage.

4) By dealing with an array of well-intended and anxious parents and grandparents spouting misinformation from old wives tales, the internet and aunt Orpha (she was married to my uncle Dewey – pronounced DewEye by the way), pediatricians make sure that children and their parents are given the best medical advice possible.

Pediatricians must have a high tolerance for crying children and the errant stream of body fluid that can dampen the workday but keeps us unpretentious. Other qualities required of pediatricians include the ability to work with and understand children and their families, excellent communication skills (including a lot of informed reassurance), the ability to make a good diagnosis (infants and children often present with illness they cannot describe), emotional resilience, aptitude for addressing neonatal and pediatric emergencies, and the ability to work as part of a multi-disciplinary team delivering integrated packages of care. Finally, almost all pediatricians I have known have a sense of humor and a kind heart. They believe that getting a child to laugh or smile is one of the most rewarding things you can experience.

As a career, pediatrics is diverse, stimulating and hugely rewarding. It is fascinating to follow children’s lives over time as they constantly change. Pediatrics provides a wide variety of flexible work-life choices while also offering a rich variety of subspecialty paths. Yes, the pediatrician must work with the patient and their whole family, most especially the parents. While not all parents are good parents or even good people, the great majority of mothers and fathers devote themselves to the well-being of their children. When tragedy occurs, I have witnessed heroism in the face of heartbreak and loyalty in the face of despair, a deep life-affirming nobility. Heavy stuff to think about as you drive your not-new, not-expensive and no longer pretty car home at night. Like this dramatic quote from Dr Arizona Robbins, a pediatric surgeon in the TV show Grey’s Anatomy written by Shonda Rhimes: “This is not general surgery in miniature. These are not just tiny adults. These are children. They believe in magic. They play pretend. There is fairy dust in their IV bags. They hope and they cross their fingers and they make wishes. And that’s what makes them more resilient than adults. They recover fast, survive worse, they believe. In Peds, we have miracles and magic. In Peds, anything is possible.”

Except fair pay.
The Potential of Eggs

Access to nutritious foods is a major aspect of global hunger issues, especially amongst young children and infants for whom nutrition essentially defines development. Poverty-related malnutrition is one of the most significant contributors to stunted growth around the world and as obesity and malnutrition rates rise in the United States, millions of children are at risk of impaired physical and mental development. Studies attempting to curb growth stunting have focused on diets, specific time points, prevention, and compensation after the fact, producing many promising results that may inform interventions both domestically and abroad.

One interesting study recently published in Pediatrics describes the significant effects that a simple dietary change can have on rates of stunted growth. Researchers from multiple institutions (including the University of California Davis and Washington University in St. Louis) divided children in the Cotopaxi Province of Ecuador, ages 6 to 9 months, into two groups; eighty-three received one egg a day for six months and eighty acted as controls.

The randomized controlled trial concluded that the intervention “significantly improved linear growth and reduced stunting” (1). An unfortified, natural, relatively accessible, and in a sense, mundane food might provide enough nutrition to lessen, if not prevent, stunted growth. When considering evidence, detailed in a 2014 World Health Organization policy brief, that growth stunting is an indicator for worse cognitive and educational outcomes in the future, there is hope for a future cost-effective, public health initiative that may improve prospects for generations of children based around a simple egg.

Sources:

Pauline Woo, M1

CNU Club Day: 8/25/2017

The Pediatric Society hosted a booth at CNU club day- an event to introduce new students to the student organizations present at CNU. Members of the leadership team talked to new students about the organization’s purpose and upcoming events, and let students officially sign up for the club. The booth also included an interactive activity, where students would attempt to match various developmental milestones with the months when they normally occur.”