

PARTNERS IN PEDIATRICS

A QUARTERLY PUBLICATION FOR PHYSICIANS

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MULTIDISCIPLINARY COLLABORATION DEFINES GROWING CHILDREN'S NEUROSCIENCE INSTITUTE



GOING PAPERLESS – NEW CMIO VINAY VAIDYA, MD, PREPARES HOSPITAL FOR MOVE TO COMPUTERIZED PROVIDER ORDER ENTRY

HOSPITAL LAUNCHES PEDIATRIC LUPUS CLINIC

PUTTING THE “WORLD” IN WORLD CLASS

PARTNERS IN PEDIATRICS

Partners in Pediatrics welcomes story suggestions and feedback from all providers.

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ON THE COVER:

P. David Adelson, MD, Children's Neuroscience Institute Director and Section Chief of Neurosurgery, visits with patient Austin Tyler and his mother Courtney Tyler, during a recent examination. Austin is recovering from a fractured skull.



NOTE FROM THE CHIEF MEDICAL OFFICER



Our fascination with children is due in part to their innocence and potential. We want each child to develop into a healthy adult, living a long and productive life. Childhood health is an important part of this goal.

Yet, through no fault of their own, disadvantaged children generally have poorer health status than their peers on the other end of the socio-economic spectrum. Nationally, the rate of poor health among low-income children is three to four times greater than higher income families. The disparity in infant mortality rates between the two groups is similarly daunting.

The economic downturn has put even more children in this category as families across our state lose their jobs and health insurance and go without vital medical care. During this time, it's important to acknowledge the legislature for restoring some of the AHCCCS cuts it made in the 2009 budget. And as lawmakers consider the 2010 budget, we appreciate their thoughtful consideration and hope they invest in these children by supporting the healthcare programs they need.

Here's why: A Robert Wood Johnson comparison of child health outcomes shows us how well we can do. Best performing regions have set new benchmarks, including lowering the infant mortality rate to 3.2 deaths per 1,000 live births (Arizona's rate is 6.5 deaths per 1,000 live births) and having only 3.5 percent of children in "less than very good health" (Arizona's rate is 19.5 percent). With these modern childhood health status goals to strive for, we must make improvements.

Second, and I think most important for policymakers, the health gap between the lowest and highest health categories helps us assess the consequences of our childhood healthcare programs. There is a dark cloud over Arizona in these results. Not only was the state's childhood general health status 47th in the country, the health gap between the worst and best family income categories was 49th in the country.

The Kaiser Commission on Medicaid and the Uninsured recently found 15.9 percent of Arizona's children are uninsured (44th worst in the country), including 26.4 percent of low-income children. Many of these children will face cognitive, behavioral, and long-term health consequences if we don't do better for them.

There are many families who have fallen victim to the economic downturn and many more children who now rely on AHCCCS – even as Arizona's safety net hospitals that care for them have been forced to absorb a disproportionate share of cuts in state funding at the same time their own budgets have taken a hit. Those cuts don't just hurt the underserved, they hurt us all; the *Arizona Republic* recently reported a study by the Virginia-based Lewin Group that showed private insurers in Arizona pay 40 percent above the costs of treating patients in order to cover shortfalls left by Medicaid and AHCCCS. That translates into an 8.8 percent uptick in the cost of private insurance premiums, or \$361 per insured person.

The legislature is contemplating more cutbacks. But this isn't the time to punish innocent children and limit their access to healthcare. Instead, it's time to invest in our children – an investment that certainly pays dividends in our future.

Sincerely,

Murray M. Pollack, MD, MBA
Chief Medical Officer and Vice President, Medical Affairs

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GOING PAPERLESS

– NEW CMIO VINAY VAIDYA, MD, HAS PREPARED HOSPITAL FOR MOVE TO COMPUTERIZED PROVIDER ORDER ENTRY

Vinay Vaidya, MD, the first person ever to hold the title of chief medical information officer (CMIO) at Phoenix Children's Hospital, sits at his desk and answers a call on his buzzing BlackBerry, one of two he carries.

On the wall above his desk hangs a white board and scribbled on it is a complex diagram of words, thoughts, and milestones related to the launch of the Hospital's computerized provider order entry (CPOE) system.

"It's called mind-mapping," Vaidya says, describing the intricate puzzle he's drawn on the board.

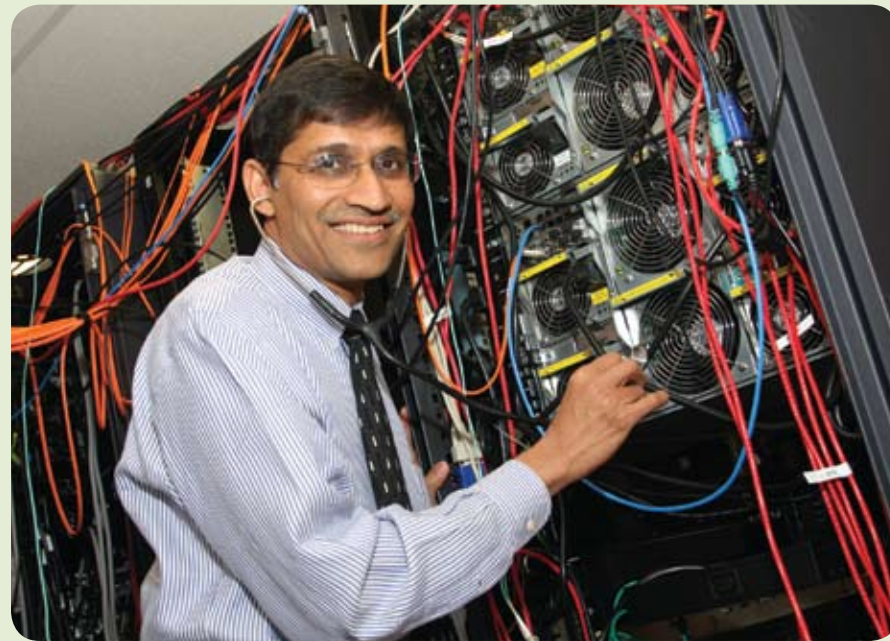
Each word, thought, and milestone is linked to and arranged around the phrase "CPOE Go-live," an event that took place on May 5.

Since his arrival in February from the University of Maryland School of Medicine where he served as Assistant Professor in the Division of Pediatric Critical Care Medicine, Vaidya, a pediatric intensive care physician by trade, has worked tirelessly to prepare his colleagues and the Hospital's medical records software for the CPOE launch.

FROM EXCEL SPREADSHEET TO MEDICAL SOFTWARE PATENT

Like many other CMIOs, Vaidya has received no formal medical informatics training; instead, it was by happenstance he discovered his passion for and skill in the field.

"My wife is a neonatal nurse practitioner, and I was helping her figure out how to order TPN, which is basically intravenous



Vinay Vaidya, MD, Phoenix Children's Chief Medical Information Officer and pediatric trained critical care physician, "listens to the heartbeat" of one of the Hospital's many servers.

nutrition," he says. "It involves a bunch of complex formulas and calculations because of all the different additives that go into it."

Vaidya put together an Excel spreadsheet that calculated everything automatically and eventually evolved it into a robust clinical application. His wife found it so useful she passed it along to other practitioners and residents at the hospital, who were equally impressed with the tool.

"That was just the beginning, and from that time on, I taught myself the necessary tools in informatics and computer technology to address not only nutrition, but other complex clinical problems," he says.

He's come a long way from tinkering with Excel spreadsheets. Today, Vaidya holds a copyright for TPN 2000, a niche CPOE program for ordering complex intravenous nutrition in critically ill neonates and children, which is being used in more than 25 centers across the country. He also holds a patent for developing a specialized CPOE program for ordering continuous medication infusions for critically ill patients. In addition, he has two provisional patents pending; one for a unique visualization tool to support bedside rounds and the other for a Web-based software for maintaining tight blood glucose control currently in use at pediatric and adult intensive care units at the University of Maryland Medical Center.

BUILDING THE BRIDGE BETWEEN TECHNOLOGY AND CLINICAL WORK

At Phoenix Children's, Vaidya's work addresses three simple questions: "Can we help make the clinical work better, faster, and safer?" Given the current economic conditions, Vaidya offers a fourth question: "Can we do it cheaper?"

According to a study by the Rand Corp., a Washington, D.C. think tank, electronic medical records could save in excess of \$77 billion a year by shortening patients' length of stay and time medical professionals spend on administrative duties, like billing and updating patient records.

Along the way, Vaidya hopes to build strong clinical/IT partnerships within each division.

"We'll be partnering with physicians, nurses, and nurse practitioners to improve their workflow and eventually improve clinical care. Ultimately, it will improve patient outcomes."

CPOE A PROVEN BENEFIT TO CLINICIANS, PATIENTS

Critical to better outcomes is the implementation of CPOE. According to Vaidya, multiple studies have shown the pediatric error rate is 10 times higher than the adult error rate across the board, primarily because when prescribing medication to children, weight is a consideration. Legibility issues also contribute to mistakes.

"Every pediatric drug – whether it's in the hospital or in the ambulatory practice – requires some sort of weight-adjusted calculation," Vaidya says. "It's not as simple as saying take some Tylenol, one tablet, three times a day – you have to multiply the dose by the patient's weight, which adds complexity and a significant chance for error."

What CPOE in the hospital or e-prescribing in the ambulatory practice will do is eliminate the issue of legibility, because

"We'll be partnering with physicians, nurses, and nurse practitioners to improve their workflow and eventually improve clinical care. Ultimately, it will improve patient outcomes."

– Vinay Vaidya, MD, Phoenix Children's Chief Medical Information Officer and pediatric trained critical care physician

everything is computerized. It also addresses the weight-adjustment calculations.

"While CPOE has been shown to significantly reduce errors, it is not a panacea," Vaidya says. "But because of its electronic nature, it is not restricted to being present on one piece of paper that has to be moved or faxed physically. In one instant it can be transmitted to the nurse, pharmacist, outpatient pharmacy, the state database, insurance companies, and labs."

CPOE, Vaidya says, is not a finite milestone, but rather a journey and a process that has to be carefully chartered and monitored.

HOSPITAL NEAR THE TOP FOR COMPUTER INTEGRATION

Phoenix Children's was well positioned for the CPOE launch.

According to HIMSS Analytics, a national body which has defined the various levels of computerized integration in hospitals, Phoenix Children's rates a 4.2 out of seven.

To put that into perspective," Vaidya says, "that places us in the top 28 percent of all children's hospitals in the country and among the top 2 percent of all hospitals nationwide."

While there is still work to be done, Vaidya is driven to carry out continued implementation.

"We are trying to accelerate healthcare information interoperability among all of the providers – the Hospital, the community physicians, the labs, the insurance companies," he says. "It will tie us all together, including the patient who is at the center of the hub."



Vaidya sits in front of his "mind map," a diagram illustrating the variety of items that had to be accomplished in advance of the CPOE launch.

HOSPITAL BRIEFS

DIVISION OF PEDIATRIC RHEUMATOLOGY LAUNCHES LUPUS CLINIC

The recently launched Pediatric Lupus Clinic specializes in the care of children diagnosed with Systemic Lupus Erythematosus (SLE or lupus), an autoimmune disease where a person's immune system attacks its own healthy cells and tissues, causing inflammation and damage to various organs. Pediatric rheumatologists diagnose and treat patients with lupus. Frequently, pediatric lupus can cause kidney inflammation, requiring consultation with a pediatric nephrologist. Early diagnosis and timely treatment can help prevent or limit organ damage.

The goal of the Pediatric Lupus Clinic is to provide comprehensive, compassionate, expert clinical care and facilitate the best possible quality of life for children with lupus. The Hospital's approach is to diagnose early, perform timely screening to detect early organ involvement, and use evidence-based, state-of-the-art treatments. The Pediatric Lupus Clinic offers diagnosis and long-term management of pediatric lupus; onsite laboratory with urinalysis; X-ray and bone mineral density testing; onsite infusion therapies; onsite vaccinations and TB skin testing; and consultation with social work and nutrition.

Clinic is once a month, and patients see both the rheumatologist and nephrologist on the same day.

Following patient evaluation, the team meets to collaborate and develop an interdisciplinary treatment and management plan. The recommendations are then passed along to the family prior to their departure from the clinic. Any new patient under the age of 18 with a diagnosis of lupus and a concern for kidney inflammation can be referred to the clinic. Concerns for kidney inflammation can include but are not limited to protein and/or blood in the urine, high blood pressure, or high serum creatinine.

The Pediatric Lupus Clinic accepts referrals from physicians of any specialty. To make a referral or for more information about the clinic, please call (602) 546-0909.

PHOENIX CHILDREN'S ENCOURAGES YOU TO JOIN THE PARENT ACTION COMMITTEE

All across Arizona Phoenix Children's meets people who have a vital interest in the future of Phoenix Children's Hospital. Moms and dads. Former patients. Non-profit organizations that serve families of kids with special needs. Grandparents. Physicians. And others who care about our community. You've asked us how you can help Phoenix Children's stand up for better and more comprehensive pediatric healthcare.

You *can* help. Join the Phoenix Children's Parent Action Committee, and ask your patients' families to do the same. Log on to www.phoenixchildrens.com/advocacy today to sign up, find out who your legislators are, and even follow us on Facebook and Twitter.

Our ability to provide the world-class services you have come to expect from Phoenix Children's is impacted by policy decisions at the state and federal level. Sometimes the policies help us offer more and better services – but sometimes the policies interfere with children getting the best pediatric healthcare available.

Time and again, lawmakers tell us families' and doctors' voices make a real difference in what they decide to do. So we have created the Phoenix Children's Parent Action Committee to keep you informed on pending policies, and what you can do to promote and improve pediatric healthcare and help reduce rising healthcare costs. There's no charge to join. There are no meetings. You don't even have to be a parent. If you sign up for the Phoenix Children's Parent Action Committee, you'll get monthly updates on policy proposals, as well as occasional "action alerts" that ask for your help, such as contacting your elected officials on a particular issue. If you have any questions about the Phoenix Children's Parent Action Committee, please e-mail pchpac@phoenixchildrens.com.



PARENT ACTION COMMITTEE

MEET OUR NEWEST DOCS

Don Wilson, MD

Pediatric Endocrinology

(602) 546-0935

Don Wilson, MD, has joined Phoenix Children's Hospital's expanding Division of Pediatric Endocrinology as the specialty area's division chief, the latest of a growing list of high-profile leaders who are helping the Hospital as it continues with its growth. Wilson earned his medical degree from the University of Mississippi, Jackson, Miss. He completed his internship/residency in pediatrics at Baylor College of Medicine – Affiliated Hospitals – Houston, Texas, and went on to finish his fellowship training in pediatric endocrinology at the same location. Most recently, Wilson worked as a pediatric endocrinologist at Texas A&M Health Science Center College of Medicine, College Station, Texas, and Scott and White Clinic, Temple, Texas. The Division of Endocrinology at Phoenix Children's Hospital offers a comprehensive team approach to treatment and management of endocrine disorders. The Hospital's endocrinologists are trained in pediatrics and pediatric endocrinology and nationally recognized experts in diabetes, growth-hormone deficiency, and other disorders. For more information on Phoenix Children's Division of Pediatric Endocrinology or to make a referral, please call (602) 546-0935.



Don Wilson, MD, Section Chief, Division of Pediatric Endocrinology

John Curran, MD

Pediatric Neuroradiology

(602) 546-1213

John Curran, MD, has joined Phoenix Children's Hospital's quickly expanding Division of Radiology as Director of Neuroradiology. The specialty area's staff is comprised entirely of pediatric-trained physicians, nurses, and techs who are uniquely qualified to care for children, whose imaging needs differ greatly from adults. Curran completed his medical degree at University College Dublin, Dublin, Ireland. After internship and a residency in family practice, he finished a radiology residency in the Irish Radiology Training Program, including an exchange resident year in Hamburg, Germany. Following radiology boards in Ireland and the UK, Curran spent one year as chief resident, and a second year as neuroradiology fellow at the University of South Alabama, Mobile, Ala. Curran then completed a year of pediatric neuroradiology fellowship at Children's Hospital of Los Angeles. He then joined the faculty of the University of California, Los Angeles, Los Angeles, Calif., as a pediatric neuroradiologist. In 2002, Curran joined the staff of Children's Memorial Hospital, Chicago, Ill., as chief of neuroradiology. Curran is boarded in diagnostic radiology and holds a Certificate of Added Qualification (CAQ) in Neuroradiology from the American Board of Radiology. For more information on neuroradiology services at Phoenix Children's or to make a referral, please call (602) 546-1213.



John Curran, MD, Director, Pediatric Neuroradiology



MULTIDISCIPLINARY COLLABORATION DEFINES GROWING CHILDREN'S NEUROSCIENCE INSTITUTE

In January, when neurosurgeon P. David Adelson, MD, FACS, FAAP, joined Phoenix Children's Hospital to take the reigns of the Children's Neuroscience Institute (CNI), the significance of his move to Arizona was not lost on anyone.

"Saying we were excited to receive the news that Dr. Adelson would be leading our Children's Neuroscience Institute is an understatement," says Murray Pollack, MD, MBA, chief medical officer and vice president of medical affairs. "He is an internationally recognized researcher and clinician who brings to Phoenix Children's the desire and ability to develop CNI into a world-class program."

Adelson was recruited to Arizona from the Children's Hospital of Pittsburgh where he served as the A. Leland Albright Professor of Neurosurgery/Pediatric Neurosurgery and Vice Chairman

(Research) at the University of Pittsburgh School of Medicine. He also served as the Director of Pediatric Neurotrauma, the Surgical Epilepsy Center, Brachial Plexus and Peripheral Nerve Center and Clinic, Center for Injury Research and Control, and Walter Copeland Neurosurgical Laboratory.

He now heads an Institute that provides comprehensive care for children with neurological and behavioral disorders, often with complex and interrelated conditions. One of the Hospital's six Centers of Excellence, the Children's Neuroscience Institute is comprised of specialists in pediatric neurology, neurosurgery, neuro-oncology, epilepsy, physical medicine, neuroradiology, neurotrauma, neuro-otology, psychiatry, and psychology, along with ancillary services such as nutrition, rehabilitation, and others as needed for the patient's particular situation.

P. David Adelson, MD, FACS, FAAP, (top row, second from left) Director of the Children's Neuroscience Institute and Section Chief of Neurosurgery, is flanked by members of the institute's Advisory Board at a recent meeting.

BUILDING BLOCKS FIRMLY IN PLACE

Adelson inherits a program whose foundation was laid by Allen Kaplan, MD, a neurologist and founding physician at Phoenix Children's. It was Kaplan's stewardship and significant contributions that primed the Institute for this stage of growth, which will position CNI as one of the nation's leading pediatric neuroscience programs.

"This is an opportunity to do something truly unique by removing the traditional boundaries of divisions and creating a seamless multidisciplinary approach to clinical care," Adelson says. "This is a propitious time because the Hospital is growing; it's an opportunity for us to develop something new and unique that isn't being done anywhere else in the country."

"This is a propitious time because the Hospital is growing; it's an opportunity for us to develop something new and unique that isn't being done anywhere else in the country."

— P. David Adelson, MD, FACS, FAAP
Director of the Children's Neuroscience Institute
and Section Chief of Neurosurgery

SHIFT IN MODEL OF CARE, COLLABORATION AT CENTER OF PROGRAM

Adelson's goal for the Institute is to create a disease-focused model of care where patients with even the most complex neurologic conditions have access to comprehensive, multidisciplinary diagnosis and treatment that previously would have had to cross traditional divisional barriers. Now medical care can be delivered seamlessly in one location with an expert multidisciplinary team representing several specialties.

"This care model will bring down the walls and old silos that separated divisions by specialty; instead our focus will be on the child," Adelson says. "When the Medical Staff, administrative staff, and support staff all have the same vision, it helps us deliver the best quality care to our patients."

Ultimately, it's Adelson's goal to deliver that care in a more timely manner and increase efficiency, both of which will result in increased patient and family satisfaction.

"We're putting in place treatment pathways so everyone from the physician to the administrative assistant knows how a patient will be treated," he says. "This will help us measure quality, variances, and figure out how we can continue to improve."

The transition to this new model of care is taking hold at even the most basic levels as evidenced by the Institute's move to establish a single CNI phone number which a referring physician can call to schedule a patient to see the CNI sub-specialist rather than try and guess which office is best suited to treat the child.

One of the many specialties collaborating with the Institute is the Hospital's Center for Cancer and Blood Disorders, which like CNI, is one of Phoenix Children's Centers of Excellence. Michael Etzl, MD, the chief of the cancer center, says his involvement goes well beyond neuro-oncology.

"All of the strengths of the Center for Cancer and Blood Disorders are available to CNI," Etzl says. "The beauty of it is to take care of these patients who need collaborative care – it's not just the surgeons, it's not just the oncologists. To adequately take care of our patients you need a coordinated program like this. Community physicians should know when they refer a patient all of these components are in place in one location to provide the comprehensive care needed to address the variety of issues these kids may have."

Etzl provides the Hospital's Brain Tumor Board as an illustration of the collaboration that regularly takes place.

"(The Brain Tumor Board) is a great example of our multidisciplinary approach to care," he says. "There are representatives from pathology,



Jeffrey Buchhalter, MD, PhD, who leads the Hospital's Pediatric Epilepsy Program, checks in with a young patient in the state-of-the-art Pediatric Epilepsy Monitoring Unit, one of many offerings of the Children's Neuroscience Institute.



Michael Etzl, MD, Director of the Center for Cancer and Blood Disorders, shares ideas at a recent meeting of the Institute's Advisory Board.

radiation oncology, neurosurgery, oncology, neurology, and nursing. We're all involved in the care of the patient and have an open discussion to develop the best treatment plans."

According to Michael Lavoie, PhD, chief of the Hospital's psychology program, the integrated approach to care has a direct and positive impact on children and their families.

"At the Children's Neuroscience Institute, parents and family members appreciate the fact that all of their child's medical and emotional needs can be met within a cohesive and comprehensive program," he says.

Referring physicians also benefit from the collaboration, says John Curran, MD, director of neuroradiology at Phoenix Children's, another specialty area that is a part of the CNI.

"Our integration into the Children's Neuroscience Institute allows us to provide timely diagnostic information on each patient, giving our specialist colleagues the opportunity to communicate rapidly with referring physicians when their patient has undergone diagnostic imaging," he says. "This high-quality, rapid interpretation of the imaging studies minimizes the possibility of uncertain debate or speculation as to the meaning of imaging findings and allows the referring physician and the specialists to move immediately to a discussion of the best therapy for the patient, thereby expediting the implementation of that therapy."

RESEARCH AN IMPORTANT COMPONENT OF PROGRESS

Another integral component of the Institute and its growth is establishing it as a national hub for leading-edge, breakthrough research. Adelson is an avid researcher and the principal investigator of a National Institute of Health funded multi-center clinical trial to evaluate whether hypothermia can improve the outcome for children following severe traumatic brain injury (*see sidebar on this page*). Recognized as one of the foremost experts on pediatric head injury clinical management, his other clinical and research interests include pediatric epilepsy, brachial plexus and peripheral nerve injury, and pediatric brain tumors.

Adelson is focused on continuing his neuroscience research efforts at Phoenix Children's and is confident those clinical trials will result in improvements in the delivery of patient care and treatments.



Neurosurgeon David Shafron, MD, visits with a patient and her parents. Pediatric neurosurgery is one of several specialty areas represented in the Children's Neuroscience Institute.

CNI DIRECTOR PUBLISHED IN JOURNAL OF NEUROTRAUMA

An article authored by P. David Adelson, MD, FACS, FAAP, director of the Children's Neuroscience Institute, and section chief of Neurosurgery at Phoenix Children's, was published in the March issue of the *Journal of Neurotrauma*.

The issue, which focuses on the beneficial impact hypothermia has on traumatic brain and spinal cord injury, includes several articles supporting the treatment. Adelson's article, "Hypothermia following Pediatric Traumatic Brain Injury," highlights research-backed data indicating the efficacy of brain cooling in pediatric patients who have suffered TBI.

Adelson is the lead investigator of an NIH-funded \$14 million multi-center clinical trial to evaluate whether hypothermia can improve outcomes for children following severe traumatic brain injury, one of the only multi-center clinical studies undertaken for head injury in children.

To read the article in its entirety, please visit www.liebertpub.com/neu.



Patient Austin Tyler walks to an examination room with Kristina Zinser, CPNP. Tyler is receiving care at the Children's Neuroscience Institute for a fractured skull.

“At the Children’s Neuroscience Institute, parents and family members appreciate the fact that all of their child’s medical and emotional needs can be met within a cohesive and comprehensive program.”

— Michael Lavoie, PhD, Chief of the Hospital’s psychology program

“I’ve started to develop some collaborations with Arizona State University, Barrow Neurological Institute, and the University of Arizona, and our hope is over the next six to 12 months we will build similar infrastructure with personnel and people who can help run these types of programs,” Adelson says. “By using the research experience I gained in Pittsburgh as a model, our goal is to have a similar type of infrastructure here for all of the neurosciences that will ultimately lead to new therapies and new management of neurologic injuries, diseases, and disorders.”

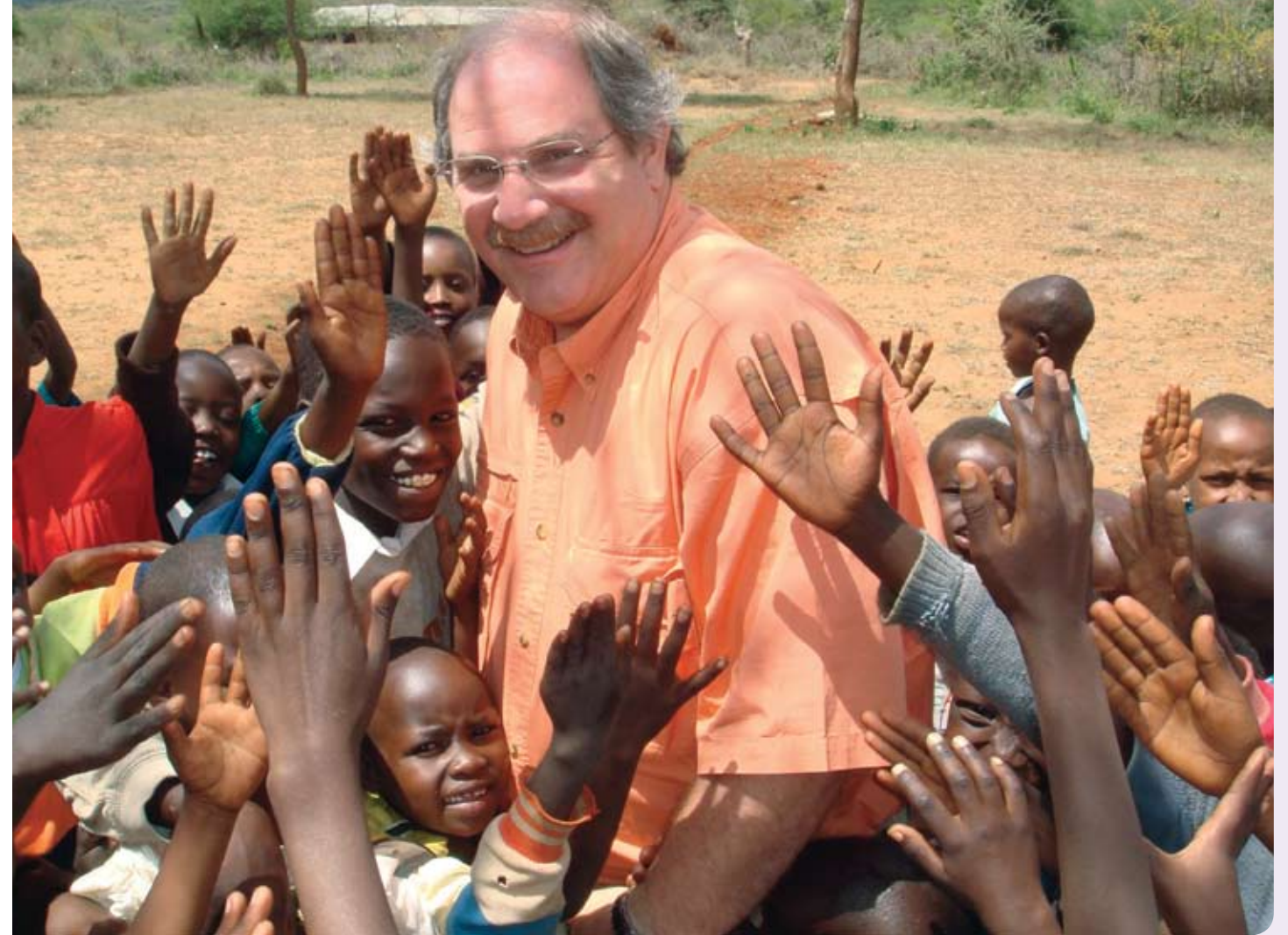
OPPORTUNITY TO DEFINE THE STANDARD OF CARE

The cross-divisional collaboration and growing research efforts, Adelson says, will help establish CNI as a world-class provider of comprehensive neurologic care.

“Phoenix Children’s is fairly young, it’s still in its growth phase, and this was an opportunity to develop something new and unique that isn’t being done anywhere else in the country,” he says. “That’s the reason I’m here – I like the vision of the administration and the Medical Staff to see Phoenix Children’s as a multifaceted resource for the community, region, and nation.”

Part of that vision can be seen today, as steel girders of the new Hospital dangle and sway from a crane that reaches more than 12 stories high. They’re carefully guided into place and bolted down by construction workers balancing on the frame of what will eventually be the new Hospital.

The rest of the vision lives in the hearts and minds of Adelson and the other medical professionals who – much like the crane operator – are carefully assembling the pieces of the Children’s Neuroscience Institute. When construction on the Hospital and CNI culminate, they will both be home to the same thing: world-class healthcare.



David Beyda, MD, Section Chief of the Hospital’s PICU, is surrounded by children of the Turkana tribe on a recent medical assessment trip to Lokori, Kenya. Beyda is medical director of Medical Mercy, an all-volunteer group of physicians, nurses, and lay people who travel across the globe to provide clinical care to children and adults in Third World countries.

PUTTING THE “WORLD” IN WORLD CLASS PHOENIX CHILDREN’S PHYSICIANS COLLABORATE, TEACH, LEARN ON INTERNATIONAL STAGE

There’s a lot that goes into becoming a world-class academic pediatric medical center. Excellence in clinical care, education, and research are all part of the equation. So is recruiting some of the best and brightest physicians from leading children’s hospitals across the country.

But a less obvious ingredient in Phoenix Children’s transformation into a world-class center is the international training its physicians have been pursuing for many years. From mission work in Third World countries to cutting-edge collaborations with some of the globe’s top researchers, Phoenix Children’s caregivers are putting the “world” in “world class.”

DISCOVERING NEW DISEASES, LEARNING NEW CURES

Ron Hansen, MD, the Hospital’s top dermatologist and a co-author of the leading textbook on pediatric dermatology, volunteers his time

at a border clinic in Nogales three times a year. “We see some kids there with rare and unique genetic conditions that nobody in our country has seen,” he says. “It gives you an appreciation for being able to manage problems and really stretching your resources.”

Hansen and other physicians take that kind of experience to a multitude of international conferences each year, focusing on different approaches to care and building support networks for ongoing collaboration. Recently, Jeffrey Buchhalter, MD, PhD, an epileptologist with the Children’s Neuroscience Institute, participated in the Epilepsy Symposium in the Philippines with speakers from Johns Hopkins University and the Mayo Clinic. The symposium was designed to provide an intensive two-day epilepsy update to physicians in Southeast Asia.

Some physicians are constantly collaborating and bringing their newfound knowledge back to Phoenix Children’s. Kim Manwaring,

MD, a neurosurgeon with the Children's Neuroscience Institute, is a surgical advisor to the world's largest surgical instrument maker, Aesculap Inc., based in Germany.

"The more I collaborate with colleagues widely across the world on a weekly basis, I realize we make fastest progress by breaking down the traditional barriers of hospital or medical school campus, and working with those who share a similar focus," says Manwaring. "This leads to further sub-specialization, but it also strengthens connections and opportunities to bring the latest, emerging technologies into trials."

Judson Karlen, MD, a member of the Hospital's Center for Pediatric Orthopaedic Surgery, agrees with Manwaring's assessment. He recently trained with renowned orthopaedic surgeon Reinhold Ganz, MD, in Switzerland, learning new applications from the Swiss physician's pioneering work in approaches and surgical techniques involving the hip.

Karlen wasted no time after his return utilizing the lessons he learned abroad in the Phoenix Children's operating room.

"The group led by Professor Ganz in Switzerland has developed a safe approach for surgical dislocation, which allows exposure of and modification to all parts of the hip joint, and I'm pleased to bring this international expertise to Arizona."

RETURNING TO THE ESSENCE OF CLINICAL CARE

Even as some physicians are learning about cutting-edge care, others are getting back to basics with their work in Third World countries.

David Beyda, MD, a critical care physician and a founder of Phoenix Children's, is likely the Hospital's most renowned traveler. He grew up overseas and was practicing medicine from a very early age. Since 2004, he has made regular trips abroad with Mission of Mercy.

"Overseas you have nothing but your stethoscope and your gifts as a physician," Beyda notes. "It really makes us consider whether something is a convenience or a necessity in care."

"Overseas you have nothing but your stethoscope and your gifts as a physician."

— David Beyda, MD, Section Chief of the Hospital's PICU



Lee Segal, MD, Chief, Division of Pediatric Orthopaedics, Herbert J. Louis, MD, Endowed Chair of Pediatric Orthopaedic Surgery, and Surgical Staff Section Chief, performs leg surgery on a patient during a recent trip to Honduras.

For some physicians, working in a Third World setting forces them to be more innovative, a skill they carry back to Phoenix Children's. Isabelle Simoneau, MD, an anesthesiologist, grew up in France and volunteers often with Operation Smile.

"You must be able to come up with an idea of how to proceed with what you have." The result, she says, is better care in critical situations in the operating room. "You can think really fast. Your power of observation is much stronger."

Other physicians gain a much larger appreciation for the team work that goes into every operation. Lee Segal, MD, the Herbert J. Louis Endowed Chair for Pediatric Orthopaedic Surgery at Phoenix Children's, has been traveling to Third World countries to provide care since 1996.

"In a Third World setting, the roles of each team member are less rigid. This is especially evident when participating on a surgical team, where each team member may have to serve several different roles," Segal says. "I think this leads to a better understanding and appreciation of the importance of each team member when we're back to our regular environment, such as the time, work, and effort required to set up an operating room."

TEACHING THE INTANGIBLES

In a testament to the Hospital's commitment to education, every physician interviewed for this story spoke about the importance of sharing what they have learned with medical residents and other Hospital staff.

Beyda created a formal Global Health elective in the Hospital's residency program and takes about 10 residents abroad with him each year. Segal takes medical students and residents on his missions to help "broaden their experience." Hansen includes as many residents as he can when he travels to Nogales.

One of the Hospital's most prolific teachers, neonatologist Guillermo Gutierrez, MD, is an internationally renowned expert in the philosophical issues related to care and speaks passionately about justice, empathy, and combating poverty. "My most important duty is to motivate young doctors and medical students to do something about it," Gutierrez says. "You don't have to go to Africa or Timbuktu to help; you can help right here."

He tells his residents, "You don't have to show you care. Just care. It shows."

One of those residents Gutierrez taught, Jonathan Lee-Melk, MD, had a formative experience in Montero, Bolivia, during medical school and was seriously considering starting a fund to continue his work there while still a resident. Lee-Melk said Gutierrez took him aside to share a presentation about the art of being a doctor and a human at the same time.

"It was then I realized I was dealing with a role model who could mentor me and help me make this decision." Lee-Melk, who is now one of the only pediatricians in southeastern Arizona, started the Rosa Vera Fund in 2005 and has been providing essential medical care, job training, and education to the people of Montero ever since.

THE PAYOFF: A BENEFIT FOR PATIENTS AND PHYSICIANS ALIKE

Phoenix Children's Pediatric Surgeon Leigh McGill, MD, has been visiting Piura, Peru, since 2006. He was somewhat hesitant to share his experience.

"You don't do charity work to get credit," he says.

It's clear he takes great pride in the life-changing work he's done in this small town 600 miles north of Lima.

"It gives you an appreciation for what we have here in our country's medical system," he says. "We save kids that they don't even try to save."

Segal echoes McGill's appreciation for being able to bring so much care to so many. "There's no care in the Third World for congenital problems. Organizations like mine care for kids that otherwise wouldn't have care," he says.

McGill, Hansen, Simoneau, and Segal all remarked on how much this means to the communities they treat.



Isabelle Simoneau, MD, an anesthesiologist on the Hospital's Medical Staff, comforts a young patient before she and colleagues from Operation Smile perform a procedure to correct the child's cleft lip and palate.

"Some people will spend five days coming down from the mountain to see me," Segal says. "Others will spend days waiting for me at the clinic, and they always wear their Sunday best."

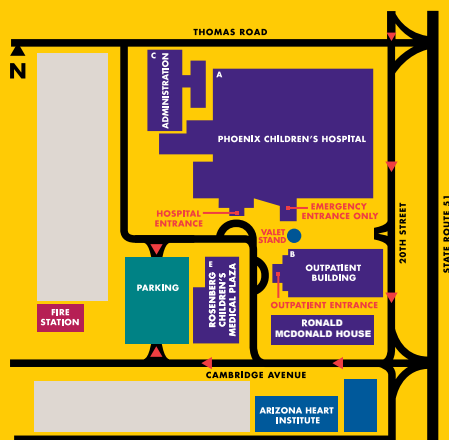
For others, the reward is being part of Phoenix Children's growing international presence in academic and research circles.

"It is easy to visualize where this Hospital will stand in the nation in another 10 years as a further wave of caring, talented physicians and researchers comes to this campus," Manwaring says.

"It gives you an appreciation for what we have here in our country's medical system. We save kids that they don't even try to save."

— Leigh McGill, MD, Pediatric Surgeon

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Physician Relations Department
Building C
Phoenix, AZ 85016



PHOENIX CHILDREN'S HOSPITAL

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(602) 546-1000
www.phoenixchildrens.com

Entrance: Turn South on 20th Street. Go to Cambridge. Turn right to Parking Entrance.

Parking: There is no charge for visitor parking. Free Valet service for patients and families is now available. The valet stand is located between the Outpatient (B) Building and the Hospital's circle drive/main entrance. Families and visitors may still park in the existing garage on the east side of level two or anywhere on levels three through five.



PHOENIX CHILDREN'S SPECIALTY CARE CENTERS

Phoenix Children's Julie and Tim Louis NICU - McDowell Road
1111 East McDowell Road
Phoenix, AZ 85006
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Phoenix Children's Specialty Care - Scottsdale
10210 North 92nd Street, Suite 101
Scottsdale, AZ 85258
Phone: (480) 314-1144 Fax: (480) 314-9752

Phoenix Children's Specialty Care - Glendale
5757 West Thunderbird, Suite E-353
Glendale, AZ 85306
Phone: (602) 863-0864 Fax: (602) 863-0683

Phoenix Children's Specialty and Urgent Care - East Valley Center
5131 East Southern Avenue
Mesa, AZ 85206
Phone: (480) 833-KIDS (5437) Fax: (480) 833-9349

Phoenix Children's Center for Pediatric Orthopaedic Surgery
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