April 2013 Newsletter

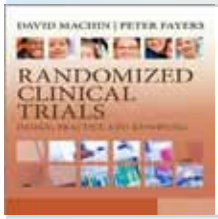
Section on

International Child Health

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Sectional News: The articles in this issue are a compilation of news and writings by members of the Section. (Sectional News issues alternate with Abstract issues.) The authors write to inform you of the international activities they, like you, wanted to do and then something stirred them to do it. They write how they got involved and how they were able to fit international health into their busy schedules. The aim is to stimulate you to prioritize your time and propel you to get involved. The world is waiting.

Welcome to SOICH's newest Executive Committee Member! The Nominating Committee announces the results of last month's election to fill the position that opened as Dr. Anna Mandalakas rotates off, having completed two 3-year terms. Dr. Cindy Howard, from the U of MN will begin her first term after the NCE this fall. Congratulations to Dr. Howard, and a big thank you to our other candidates and to those who voted in the election!



On page 4-6 **A treat:** Professor Trevor Duke, from the Centre for International Child Health, Department of Pediatrics, U of Melbourne has done us a real favor. His booklet summarizes the evidence on child health derived from randomized trials in developing countries in 2012. This is a wealth of information; a must read.

On pages 9 **Quality Improvement Innovation Network:** Steve Kairys our QuIIN expert offers a practical suggestion to implement a quality improvement program. There are so many new recommendations it becomes very difficult for a busy practitioner to implement them all. It's even more difficult for our overworked colleagues in resource-limited areas. He offers a first key step: prioritize, start with one and see where it leads you.

On page 11-13 **AAP International Elective Awards:** These awards have helped expose our young colleagues to situations that have changed their lives. Residents return with a new understanding of how health care is practiced in so many parts of the world and a strong desire and a determination to help improve the lives of others. Your contributions make this award possible. This issue features experiences in Uganda and Liberia.

On page 14 **Global Immunization Corner:** Donna Staton represented SOICH and the AAP at a Shot@Life Champions Summit in Washington, DC. She gives us an insight into the conference and describes tools Shot@Life provides to make it easier to advocate for more support and funding for global vaccines. Your Section has a very significant presence in the Academy you can take credit for. Maintain your enthusiasm and your support.

In this Issue:

"We are guilty of many errors and many faults, but our worst crime is abandoning the children, neglecting the fountain of life. Many of the things we need can wait. The Child cannot. Right now is the time his bones are being formed, his blood is being made and his senses are being developed. To him we cannot answer, 'Tomorrow'. His name is 'Today'."

Gabriela Mistral
Nobel Prize-winning
Poet from Chile

HIS NAME IS 'TODAY'

Get Connected

Two easy ways to find others with like interests in your favorite country

1. "The Section's International Child Health Network is a free and open service designed to establish connections that foster cooperation on a variety of health projects including relief and development work, humanitarian service, equipment/supply donation, education, research, fund raising, and visitor exchange."

Go to the Section's web site and "search the ICHN independently to identify colleagues who have specific interests and expertise. Alternatively, you can find partners and opportunities by contacting Country Coordinators –designated advocates (one for each country worldwide) who facilitate correspondence and activities between Fellows of the AAP, colleagues living and working abroad, and other individuals or groups concerned with promoting child health. Using the ICHN is easy! After a brief registration process you will immediately be able to search the network on your own or communicate with Country Coordinators."

2. The list serves for CHILD2015 and HIFA2015 now have over 7000 registered participants representing 167 countries worldwide. This list serve continues to be very active and informative with topics of general interest discussed from those on the ground; those in the trenches. There are frequently reports and articles that would be of interest to many of you. If you have not joined, go to their website and sign in.

We have recently extracted those registrants who have given permission to publicize their contact information. That data is available in an Excel file and contains the names, positions, country, and interests or expertise of more than 300 child health professionals representing over 60 different countries. Find a person who shares your interests and a country would like to work in and make a connection.

Go to the Section's web site: working opportunities

The Chair's Column

Linda Arnold, MD, FAAP

Two weeks ago, Parmi and I had the privilege of representing SOICH at the Academy's Annual Leadership Forum (ALF). The ALF brings Section, Council, Committee and Chapter leaders together in order to provide leadership training, promote networking and communication, and foster discussion of key pediatric issues – with the ultimate goal of providing advice that assists the Academy's Board of Directors in shaping future policies and strategic priorities.

On the first night of the ALF, Jonathan Klein and I hosted a topical dinner for a large and diverse group of attendees interested in global child health (GCH). After Jon provided an overview of AAP priorities and initiatives pertaining to GCH, I was able to showcase all the things SOICH is doing, and the pivotal role our members play in the Academy's many GH activities. The remainder of the session provided participants (including AAP president Thomas McInerny, several members of the Board of Directors and Edgar Vesga-Arias, newly appointed Director of the Office of International Affairs) with a forum for discussing their varied interests and personal experiences with GH – providing a springboard for future collaborations and program development.

In between sessions, Parmi and I discussed areas of overlapping interest and potential collaboration with leaders from other sections, and met with AAP staff from the international and development offices to talk about SOICH's current and future role in AAP GH activities. We also carved out time to brainstorm about better ways to engage members in various section activities, plans to increase transparency about terms and responsibilities for different committees, increasing autonomy and leadership opportunities for those who volunteer their time on behalf of the section, and strategies to effectively identify and nurture section members with future leadership potential.

Results, thus far, include three proposals for co-sponsored sessions for the 2014 NCE and a plan to restructure executive committee oversight of SOICH's many activities and programs in accordance with the goals and objectives identified in our strategic plan. I believe this approach will not only help keep us "on track," by ensuring that we prioritize activities that support our mission, but that it will also streamline the way that we function, and provide more of our members with opportunities to make meaningful contributions and to assume leadership roles within the section.

This is an exciting time for SOICH. We look forward to having you join us in our work, and in supporting the work that all of you do on behalf of children. Please be sure to let me, or other members of the Executive Committee, know if you have any suggestions about how we can better serve the needs of our members, or those of the world's children.

Linda

I-CATCH calls for proposals

The next cycle for I-CATCH Grant applications has begun. Applicants submitting a preliminary proposal prior to June 3, 2013 will be teamed up with an I-CATCH mentor to offer guidance and improve grant responsiveness to the ICATCH mission. The final grant submission date is August 5, 2013.

Pediatricians or other health care workers providing services for children in a resource limited setting outside of the US are eligible to apply. Two individuals must be listed on the application. The project director must live in the country where the program will be carried out. The project codirector may live in another country, but must be involved in planning and monitoring the project The idea for the project must originate from the community in which it will be carried out..

Since the first cycle of grants began in 2006, I-CATCH has funded 41 projects in 25 different countries on five 5 continents. Grant recipients have improved access to health in infants and children affected by malnutrition, infectious disease, developmental disabilities, and neonatal conditions. Educational programs have targeted parents, teachers, health care workers, and entire communities.

More information may be found at http://www.aap.org/sections/ich/i_catch.htm or by writing to i-catch@aap.org.

Randomized Trials in Child Health in Developing Countries 2012

Professor Trevor Duke, MD FRACP, Centre for International Child Health, Depart of Paediatrics, U of Melbourne Intensive Care Unit, Royal Children's Hospital Parkville, Vic 3052, Victoria, Australia
www.ichrc.org http://www.ichrc.org/; www.rch.org.au/cich

This booklet is compiled annually to summarize the evidence on child health derived from randomized trials in developing countries over the previous year. The aim is to make this information widely available to pediatricians, nurses, other health workers and administrators in resource poor settings where up-to-date information is hard to find. It is hoped that such information will be helpful in reviewing treatment policies, clinical practice and public health strategies.

The method of searching for studies to include uses PubMed, a search engine that is freely available and widely used in most countries throughout the world. The search strategy has been chosen to try to capture as many relevant studies as possible, although it is possible that some are missed. If you know of a relevant RCT that has not been included in this year's review, please let me know. The search strategy is reproducible by anyone with access to the Internet, through http://www.ncbi.nlm.nih.gov/sites/entrez

Randomized controlled trials (RCTs) are far from the only valuable scientific evidence, and some RCTs, because of problems with design or implementation have limited value. However the method of the Randomized Trial is the Gold Standard for determining attributable benefit or harm from clinical and public health interventions. When done appropriately they eliminate bias and confounding. However their results should not be accepted uncritically and they should be evaluated for quality and validity. Before the result of an RCT can be generalized to another setting there must be consideration of the wider applicability, feasibility and potential for sustainability.

This year 242 studies were identified. These came from all regions of the world, mostly from developing country researchers. Several trials from 2011-12 will lead to significant changes in child health approaches or clinical recommendations.

We have included the web-link for papers that are available in full-text on the Internet free of charge. More importantly, through HINARI (http://www.who.int/hinari/en/) a program set up by WHO in collaboration with major publishers, the full-text versions of over 8500 journal titles and 7000 e-books are now available to health institutions in 109 countries. If your health institution (medical school, teaching hospital, nursing school, government office) has not registered with HINARI, you can check your eligibility and register online.

Please feel free to distribute this booklet to any colleagues. Previous editions (2002-2011) are available at: www.ichrc.org

Four trials reported significant reductions in mortality (marked with *** in the booklet), among these:

1. In India the introduction of a program: Integrated Management of Maternal, Neonatal and Child Health reduced neonatal and infant mortality. In this program community health workers were trained to conduct postnatal home visits and women's group meetings, where physicians, nurses, and community health workers were trained to treat or refer sick newborns and children. Supply of drugs and supervision were strengthened.

2. In rural Pakistan application of 4% chlorhexidine to the umbilical cord reduced neonatal mortality and omphalitis

3. In Uganda a trial of zinc in the treatment of severe pneumonia showed a significant reduction in deaths in the zinc treated group. This is the first trial of zinc treatment in pneumonia with the power to show a mortality difference. The effect was especially strong in children with HIV. Two other trials this year – from India and Nepal - did not show a significant beneficial effect of zinc on resolution of pneumonia signs.

4. In Bangladesh, antenatal treatment of pregnant women from poor communities with multiple micronutrients, including iron and folic acid combined with early food supplementation decreased the risk of mortality in their children.

Other important results in 2011-12

In South Africa, extended nevirapine during breast-feeding significantly reduced the risk of HIV infection: 1.1% (95% CI 0•3-1•8) of infants who received extended nevirapine developed HIV-1 between 6 weeks and 6 months compared with 2•4% (1•3-3•6) of infants who only received nevirapine for the first 6 weeks of life. However in a trial in Ethiopia, children who received nevirapine for 6 weeks and had prophylaxis failure - i.e. they developed HIV - had a higher risk of resistant strains of HIV.

In the Americas, post-natal treatment with zidovudine for 6 weeks plus three doses of nevirapine during the first 8 days of life, or zidovudine for 6 weeks plus nelfinavir and lamivudine for 2 weeks was more effective than zidovudine for 6 weeks at reducing parent-to-child transmission of HIV in mothers who did not receive ART during pregnancy.

In 6 African countries initiation of HIV treatment in children who had no prior exposure to nevirapine, ART with zidovudine, lamivudine,

and 'ritonavir-boosted lopinavir' resulted in lower virological failure than zidovudine, lamivudine and nevirapine. Nevirapine resistance was a common feature of treatment failure.

In 7 African countries in a phase III trial the RTS,S/AS01 malaria vaccine provided protection against both clinical and severe malaria in African children, with vaccine efficacies of 50% for first episode of malaria, and 35% against severe malaria. Another study from 3 African countries in a phase II trial showed similar efficacy (53% and 59%) against the first episode of malaria and all malaria episodes, respectively, when children were followed up at 19 months. A third study of seroresponse in children in Mozambique showed protective anti-circumsporozoite antibodies at 42 months. The RTS,S/AS02 vaccine also induced high levels of anti-hepatitis B surface antigen antibodies.

In a meta-analysis of 7 trials in malaria endemic countries in West Africa involving 12,000 children, intermittent preventative therapy of malaria (IPTc) during the malaria season prevented approximately three quarters of all clinical malaria episodes and a similar proportion of severe malaria episodes. These effects remain present even where insecticide treated net (ITN) usage is high.

In Mali, a program for intermittent preventative treatment of malaria along with routine vaccines increased vaccine coverage. In Ghana health care delivery costs were less and coverage was the slightly higher when IPTi was delivered by village health workers, compared with when IPTi was delivered by clinic or outreach EPI nurses.

In a large study in Uganda involving over 100,000 children with suspected malaria, use of rapid diagnostic tests (RDT), compared with presumptive diagnosis, significantly reduced the prescribing of artemether-lumefantrine. However 23% of children with negative RDT were still prescribed antimalarials. Compared with microscopy, RDTs reduced waiting time and were considered more convenient for patients and health workers. In Tanzania community health workers could use RDT: no fatal or severe malaria occurred among 682 RDT negative children who were not treated with antimalarials by CHWs. This suggests that it is safe to withhold malaria treatment to RDT negative patients and that lower level health workers can make decisions based on RDT.

As has been found in studies in previous years, in a multi-country study in Africa, dihydroartemisinin-piperaquine was as effective as artemisinin-based therapy for uncomplicated P. falciparum, and resulted in a lower malaria recurrence risk.

In Lao, China, and Uganda trials of albendazole and mebendazole for the treatment of worm infestation showed that albendazole is more efficacious than mebendazole for hookworm. However single-dose albendazole had low efficacy against hookworm, and treatment daily for 3 days (in Lo and China), or 2 doses 8 hours apart (in Uganda) was better. Albendazole had lower efficacy than mebedazole against Trichuris trichiura, where 3 days of treatment (or 2 doses in the one day) was optimal for cure.

In Kenya, the combination of albendazole and di-ethyl carbamazine (DEC) was more effective than either drug alone for filariasis. This is important for mass administration programs aiming to interrupt transmission of W. bancrofti in endemic areas.

In Columbia, oral Meltifesone given for 28 days by directly-observed treatment was shown to be as effective as antimonial drugs given by intramuscular injection daily for 20 days in the treatment of cutaneous Leishmaniasis. Meltifesone is the first oral drug to be effective against visceral or cutaneous leishmaniasis, and is good news for efforts to eradicate the disease.

In a trial involving over 66,000 people in Kolkata, India, the 2-dose killed whole-cell oral cholera vaccine provided 65% protection for at least 3 years. One case of cholera was averted for every 404 people vaccinated.

In the Gambia, the 7-valent pneumococcal conjugate vaccine showed a marked herd immunity among children in neighbouring non-vaccinated villages, with no significant serotype replacement.

In Malawi, South Africa, and Kenya, rotavirus vaccine given in the first 3 months of life remained effective against severe rotavirus diarrhoea in the second year of life. Three doses of RV vaccine in the first 3 months of life provided greater second year protection than two doses.

In Papua New Guinea a single dose of oral azithromycin was as effective as a single injection of benzathine penicillin. This may overcome the operational difficulties associated with administering an injection, raising the prospect of tackling yaws through the mass treatment of populations at risk.

For Indian children with type I diabetes, drinking 500ml of camel milk daily improved glucose tolerance and reduced insulin requirements.

In Angola, 12-hour infusions of cefotaxime resulted in a lower rate of the combined outcome of mortality and severe neurological sequelae in children with pneumococcal meningitis, than boluses of cefotaxime every 6 hours.

In Bangladesh simple guidelines and training on child TB case detection together with basic logistics support were integrated into the existing National TB Control Programme and markedly improved case funding for children with TB.

There were some important negative trials:

Despite strong evidence that children with vitamin D deficiency are at increased risk of pneumonia and bronchiolitis in some populations, two trials showed there was no beneficial effect of vitamin D as adjuvant therapy for severe pneumonia.

Despite previous positive trials, a large trial in South Africa showed no evidence that isoniazid preventative therapy improved tuberculosis-disease-free survival among HIV-infected children or

tuberculosis-infection-free survival among HIV-uninfected children who had received BCG vaccine.

It is important to understand the context in which benefit (or harm) occurs in a trial. This context may include: individual or population characteristics, comorbidities; the health care environment and health care providers; geographical factors; other interventions; the delivery mechanism for the drug, vaccine or other intervention; the disease stage and specific aetiology; economic, social and cultural characteristics of the population and individuals within it…and other unknown factors. This can be even more complex in understanding systematic reviews of randomized trials (where heterogeneity is often reported incompletely), and is one reason why there is a need for more large-scale implementation trials – not necessarily randomized - that provide insight into local context.

In the last 10 years there have been 1342 trials summarized in the various editions of this booklet.

The public health benefits that have come from the huge number of trials on malaria (about 22% of all RCTs in the last decade) can be seen in the uptake of new interventions and reductions in malaria in each affected country in the world. The funding of comprehensive programs of research to "roll-back" malaria and implement the results of trials is a good example of the optimum benefit of research. While malaria rates are falling, the same reductions are not being seen in pneumonia, malnutrition or neonatal illness – and taking similar comprehensive approaches to the research agenda and to research-driven public health interventions are needed. It is striking that despite over 60 randomized trials of zinc sulphate over the last decade, most children with diarrhoea or malnutrition in developing countries still do not have access to zinc, and many not even access to oral rehydration solution – proven by many decades of RCTs.

In 2011-12 the impact of economic transition, Western morbidities and high-technology research was more evident, with clinical trials this year from India and China on issues related to non-communicable diseases, including obesity, diabetes, congenital heart disease, allergy, and modifying risk factors in childhood for adult cardiovascular disease.

More support is needed for developing public health research capacity in developing countries. This would improve the quality, scale and relevance of future trials, and improve the process of local analysis and implementation. High quality local trials need to be valued higher. At present, mechanisms of research funding and publication have a bias towards international agency supported and organized trials. Flourishing local research efforts are essential for development.

SOICH Development Subcommittee is seeking 3 new active, creative members for 2 year term (renewable)

Interested in joining a great team?
Elizabeth Montgomery, Development Subcommittee Chair looks forward to hearing from you!
EGMontgomery@aap.net

Membership Expectations

Bring novel and creative fund raising ideas to the table
Work with the Executive Committee and AAP Department of Development to raise funds to support new & established programs
Review and edit grants and other fund raising applications
Assist committee in thanking all donors individually

Membership benefits

Satisfaction of ensuring that meaningful SOICH programs can continue (e.g. Resident International Elective Awards, I-CATCH grants, NCE speakers, and what's in the future
Formal recognition of your efforts on behalf of the Section
Increased potential for leadership opportunities within SOICH

SOICH

Section on International Child Health

Hawassa Maternal & Child Health and Safe Mothering Collaborative Project

Kinfe Gebeyehu MD; MPH; FAAP, Emeritus Attending Pediatrician Department of Pediatrics Stroger Hospital of Cook Co., Chicago, Illinois; Chair of Maternal Child Health (MCH) committee, Founding Member, Ethiopian North American Health Professionals Association (ENAHPA), Senait Fisseha MD; JD; Associate Professor and Medical Director, Center for Reproductive Medicine, Department of Obstetrics / Gynecology, University of Michigan; and co-chair of ENAHPA MCH committee, Founding Member, ENAHPA, Haregua Getu, MD; Private Practice, Internal Medicine; Vice-President and Founding Member of ENAHPA; ex-officio Member ENAHPA MCH Committee , Ingida Asfaw MD; FACS, Clinical Associate Professor of Surgery, Wayne State University, Detroit, Michigan; President and Chief Operating Officer of ENAHPA, Elizabeth Asfaw Ph.D., Adjunct Professor. Jones International Univ., Senior ENAHPA MCH committee member

Historical background, goals and objectives

The Maternal Child Health (MCH) and Safe Mothering Center, a collaborative program of Ethiopian North American Health Professionals Association (ENAHPA), and Hawassa Bureau of Health Services, opened its door on February 18, 2011 to serve the city of Hawassa and its surrounding communities.

Hawassa is a beautiful town of about 110,000 inhabitants within its city limits and is located by a lake whose name the town has also acquired. It is located about 175 KM south of Ethiopia's capital, Addis Ababa, in the Southern Nations and nationalities region. The population in the immediate localities that fully or partly depend on the town is probably over 400,000.

ENAHPA is a voluntary non-profit organization established in 1999 in North America by the dedicated efforts of its President, Dr. Ingida Asfaw, a cardiothoracic surgeon, and by other committed founding members of Ethiopian origin. ENAHPA's vision is voluntary outreach programs in Ethiopia in medicine, surgery, public health, HIV and caring for orphans. Resources are provided by member contributions, donations, fund raising drives, and grants from organizations, foundations and individuals. Transfer of knowledge, skills and technology to medical, nursing and allied health professionals in Ethiopia has remained one of ENAHPA's strong missions ever since its establishment.

However, from its inception, ENAHPA saw maternal and child health care as a crucially urgent area to participate in. ENAHPA and the people of Ethiopia believed that much could be done to prevent and reduce maternal, neonatal and child deaths and illnesses in rural and urban communities. It was on this principle that a partnership was established between ENAHPA, Hawassa Health Bureau, and the Ethiopian Ministry of Health. The goal was to build and equip a center, train the staff to run a prenatal and child health program which would include a maternal and neonatal unit where emergency obstetrical procedures and neonatal resuscitations and treatment could be rendered. The Bureau of Hawassa Health Care Service assumed responsibilities to staff the center, maintain the building and its functions, and provide administrative leadership for day to day operation of the center. The Center was colorfully inaugurated on February 18, 2011 in the presence of the administrative leadership of the region, the then Minister of Health of Ethiopia, Dr. Tedros Adhanom, representatives of the executive board of ENAHPA, ENAHPA MCH committee members, community leaders and members of the Hawassa township.

ENAHPA is grateful to the numerous organizations, foundations, grantors and individual donors who contributed heavily towards the construction of the building and establishment of the Center that already, in just about two years, has started showing significant results.

Summary of activities and accomplishments

1. Hawassa MCH and Safe Mothering Center has made remarkable impact in the providing of prenatal care and in screening high risk pregnancies for timely intervention including delivery by c-section and effective neonatal resuscitation and treatment. Staff training which included funding for local training of a general practitioner, a nurse and an OR technician in emergency obstetrical and neonatal procedures was part of the planned program.

2. Screening of pregnant mothers for HIV has shown progressive increases in participation, with more and more mothers consenting to screening tests and treatment. Mother to child transmission prevention both during pregnancy and delivery by using antiretroviral therapy (ART) for the mother and fetus and appropriate course of treatment for the new born soon after birth have been given much emphasis with increasing number of mothers accepting treatment. The decline in the number of HIV positive mothers in spite of increasing number of cases screened is a welcome finding that adds to the well being of mothers and their babies.

3. The utilization of the Center has dramatically increased with ever more mothers seeking care rather than risk difficult labor at home. This necessitates the expansion of the Center along with increasing community wide extended prenatal service and safe mothering programs at the main center. We hope all international maternal and child health support and funding agencies would help in this project. A collaborative effort could make this a pilot program for many other regions. (see table for benefits of prenatal services)

April to December 2012	Number	Stillbirth or neonatal death
Attended prenatal services	201	4 (2%)
Did not attend prenatal services	749	35 (4.7%

4. Besides the prenatal care and obstetrical and neonatal emergency management summarized, the center continues to assess, treat, counsel and prevent childhood illnesses and conditions. Growth, development and nutritional assessment of children 3 years old and younger by standardized measurements by optimal immunization and by a simultaneously running family planning service are the hallmarks of the MCH Program.

In a collaborative program, all wheels of the agencies involved must be engaged and be fully functional. The professionals at Hawassa MCH services, in Obstetrics and gynecology, deliveries, prenatal, preventive care and planned parenthood whose successful efforts were constantly supported and acknowledged by the administrative and program directors as well as by ENAHPA should feel proud to have been at the helm of a program that has shown remarkable success and lots of promises.

For more ENAHPA activities and health care initiatives in Ethiopia check: www.enahpa.org

This Section is Your Section

Get Involved & Share your Experiences

The Quality imperative; Evidence Based Practice

Steve Kairys, MD, FAAP Skairys@meridianhealth.com

There continues to be a growing number of protocols and bundles for evidence based practices for pediatric health care. There are increasing numbers of randomized clinical experiments as well as specialty specific consensus reports on best practices. Studies show that even with constant reminders about use of guidelines, pediatricians in the United States utilize evidence based approaches to care only about 55% of the time.

There are a number of reasons for this slow adoption of state of the art care concepts. Many pediatricians are content with their style of practice, receive positive feedback from their families, and find it difficult to change. There are often so many new recommendations that a busy practitioner can not see how he or she could implement so many revisions in the way care is being done.

Spread of such evidence based approaches in the international community is also a best practice innovation that could be beneficial irrespective of the local resources or support systems. There are some methods of spread that are grandiose and others that need only one committed doctor at a time. One concept is presented for this discussion.

A first step is to prioritize what health care practices to target. An approach that is taking hold in the United States is the Choosing Wisely campaign. The goal is to get a group of practitioners to agree on five things that could be priorities to change. For example the American Academy of Pediatrics for primary care has chosen: 1) antibiotics should not be used for apparent viral respiratory illnesses; 2) cough and cold medicines should not be prescribed for respiratory illness in children less than four years of age; 3) CT scans are not necessary for minor head injury; 4) CT, MRI is not necessary for simple febrile seizures; and 5) CT scans are not necessary for evaluation of abdominal pain.

The AAP hospital pediatricians created their own list that includes:
1) don't order chest X-rays for children with simple asthma and bronchiolitis;
2) don't routinely use bronchodilators in children with bronchiolitis;
3) don't use systemic steroids in children under two years of age with uncomplicated lower respiratory tract infection;
4) don't treat gastro-esophageal reflux in infants with acid suppression therapy; and
5) don't use continuous pulse oximetry in children with acute respiratory illness unless they are on supplemental oxygen.

The Choosing Wisely process would be a wonderful exercise for a local region or country. A local champion could engage a dialogue with local pediatricians. A list of local practices that are creating controversy or large variations of care would be developed. SOICH with the aide of QuIIN doctors could participate in helping to determine if there are existing evidence based approaches that could inform the list of issues raised. A QuIIN pediatrician could partner with the in-country champion to discuss innovative ways to improve care. Some form of quality improvement and measurement could be part of the process.

Any physicians interested in getting more information or looking for next steps can email Dr. Kairys

We would like to thank the following donors for their generous donations to the Section on International Child Health (SOICH) and its programs (I-CATCH, Resident International Elective Awards, International Activities) during the period of April 1, 2012 to February 28, 2013
Your donations are making a world of difference!!!

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Thank you for your support!
Section on International Health Subcommittee on Development
March 2013

AAP International Elective Awards

Anna Hedstrom, MD, Second Year Neonatal-Perinatal Medicine Fellow, University of Washington

I am very honored to have received an AAP International Elective Award for travel to the Kiwoko Hospital in Uganda for a 5-week long experience. As a neonatology fellow with a focus on global health I spent my time at Kiwoko in the neonatal intensive care unit (NICU), which provides tertiary care for a large catchment area of rural, central Uganda. Patients arrive most commonly via motorcycle, accompanied by family who will care for them throughout their stay. Newborns are often low birthweight and suffer from a combination of birth asphyxia, neonatal sepsis and/or respiratory distress. Babies not born at the hospital have often survived several days in the community before family overcomes the difficult logistical and financial hurdles to bring them to the NICU.

Over the past 15 years, this NICU has developed from a small one-room unit without adequate staffing, not capable of keeping babies warm, unable to provide phototherapy, and no safe intravenous fluids. More recently the expanded NICU (considered "high tech" for the region) had only a nasal cannula to offer babies in respiratory distress. As anticipated my clinical time in the unit involved supporting the new integration of continuous positive airway pressure (CPAP). This is a vitally important process to bring this new technology to the unit in a safe, ethical, financially sound method, one that was sustainable when my elective was over. This rollout involved rigorous education, refinement of process and training of all care providers in order to use the CPAP most effectively. I collaborated with University of Washington neonatologists Maneesh Batra and Ryan McAdams, the six physicians at Kiwoko hospital as well as with the NICU charge nurse and nursing staff.

Major hurdles to the CPAP rollout process included teaching a clinical evaluation tool to decide which babies needed positive pressure. Previously because there were no therapies available for treatment of respiratory failure beyond nasal cannula nurses and physicians did not have a method for evaluating the process of breathing of a newborn. During vital sign checks nurses assessed a baby's respiratory effort as "good", "fair" or "poor"- a "good" effort, however, might actually indicate excessive work of breathing. During my time at Kiwoko I taught a respiratory severity scoring system[1] that objectively allows doctors and nurses to quantify work of breathing using examination criteria such as nasal flaring, subcostal retractions, grunting etc. This produces a score from 1-10; higher scores (>5) indicate a baby who would benefit from CPAP. Training was accomplished via a video module as well as bedsides evaluations of patients with providers to reinforce this new evaluation tool. This score proved very useful to staff in starting, stopping and titrating CPAP.

Further work in the unit involved educating nurses and doctors to understand the physiology of positive pressure in the neonate, how the bubble CPAP device worked, how to set it up/ trouble shoot the mechanics/ monitor the baby and how to properly remove a baby from the therapy. Initially providers were asked to use the therapy only for infants they judged would otherwise die. The first infant on CPAP was an 1100 gram 31 week preterm infant with respiratory distress and profound chest retractions on day of life 2. The staff marveled as her work of breathing calmed once placed on CPAP. My work involved making sure this new technology was well supported during its initial runs - if the CPAP device malfunctioned in the middle of the night neither the doctors nor nurses knew how to fix it. One week later our first patient was removed from CPAP and eventually went home with her family after weaning from nasal cannula.

One major component of the initiation of CPAP at this rural hospital was the emotional support of the staff as they brought in a new life-saving technology. It was vital to reinforce the importance of using this device when needed but also to understand that CPAP is not a ventilator and will not save babies in more severe respiratory

distress. In particular it was difficult but necessary to discuss that babies with severe apnea (such as from severe birth asphyxia) would not be saved with CPAP and that it did not reflect any deficiencies in the excellent care nurses and doctors were providing the neonates. I was happy to find that nurses and doctors over time became very proficient with the CPAP device and also proud of the lives they were now able to save. This is truly an exciting therapy in a country where few babies have access to advanced respiratory support.

It was such an honor to be able to travel to Uganda for this project and I am very thankful to the AAP Section on International and Child Health for funding trainees such as myself. This is an exceptionally important project for my future career in global neonatal health and I plan to continue to work with this project after graduation and am looking forward to other global neonatal sites benefiting from our work.

Reference:
1. Silverman, W.A and Andersen, D.H. (1956) A Controlled clinical trial of effects of water mist on obstructive respiratory signs, death rate and necropsy findings among premature infants Pediatrics; Jan;17(1):1-10.

Pediatric Emergency Care Improvement in an Academic Collaboration Setting

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Liberia, a West African nation of nearly 4 million people, suffered through a disastrous 4-year civil war from 1989 to 2003. Much of the country's medical infrastructure was destroyed and child health took a heavy hit. Half of the population of Liberia is under 15 years of age. Liberia has one of the highest infant mortality rates in the world at 74/1000 live births, a neonatal mortality rate of 34 and an under-5 mortality of 103/1000.[1] Chronic malnutrition as reflected in moderate or severe stunting is present in 42% of the children under 5.[1]

With the war over, the medical school began rebuilding both its structure and its faculty. The Department of Pediatrics in the country's only tertiary teaching hospital, the JFK Medical Center was able to recruit the only two Liberian pediatricians in the country to direct clinical care and medical student and intern education. Three senior medical officers who had completed an internship but have not completed a pediatric residency assist with clinical, administrative and research. As a Department, the pediatricians and senior medical officers provide didactic lectures and clinical supervision to 20 third and fourth year medical students rotating on the pediatric service. To assist the Department with this huge educational task as well as expand patient services and research, a collaboration of academic pediatricians from various U.S. institutions was formed with visiting pediatricians serving in a number of different roles.

As part of this collaborative effort, I have had the privilege of working in Liberia for the last four years during my pediatric residency and pediatric emergency medicine fellowship. In the Emergency Room, I teach medical students, interns and physician assistants the acute care of sick and injured children. During this time, I have watched progression of students through their years of training and the senior medical officers grow and develop into excellent clinicians improving their skills in clinical care and developing an interest in research.

During my numerous trips to Liberia, I have built relationships with the nurses, senior medical officers and pediatricians and through them have come to understand the needs of the hospital system. The goal of my most recent trip was to do clinical work while teaching trainees in the newly opened under-5 pediatric emergency room and assist with other educational needs of nurses and health care providers. Prior to the opening of this unit, emergency care for children was intermixed with adult emergency care. In the old system, it was difficult to address the needs of children as there was insufficient staff to focus solely on the provision of pediatric care. Now in this special unit, we can target interventions to improve the provision of emergency pediatric care.

Children seen in the under-5 emergency care unit are often first evaluated by a nurse who does the initial work up and begins the management as a medical provider is often not immediately available. There was wide variation in the nurse's confidence and skills in initiating diagnostic and management plans and their interventions would differ depending on which provider (PA, Medical officer, consultant) might see the patient. Providers also reported variation in practices even for common conditions such as pneumonia, meningitis and malaria. Given the varied level of confidence and variations in practice, it was felt that standardized clinical protocols were needed to assist nurses in initiating treatment and management. Partnering with the senior medical officer in charge of the under-5 unit, we developed protocols for the 7 most common chief complaints; seizure, fever, tachypnea, vomiting/diarrhea, pallor, malnutrition and unconscious. Each started with a nursing component to help with the diagnosis and guide initiation of life saving treatment. The protocols then transitioned to standardize management of these common conditions for students, interns, PAs, senior medical officers and attending physicians. To avoid resource issues (printing and paper) and barriers to dissemination and to ensure maintenance and easy access of this information, the protocols were printed, laminated, and posted in the treatment area. To ensure local ownership and 'buy-in', in-service training with nurses and providers was done by the senior medical officer in charge of the under-5 unit who had co-written the protocols. After the protocols have been used for four months, the effect they have had on antibiotic use, length of stay, and mortality will be assessed. Until then this new unit, one of the only dedicated pediatric emergency care units in Africa, will continue to provide child and family-friendly care for children in Liberia and will serve to train the next generation of Liberian physicians in pediatric emergency care.

References:
1. The State of the World's Children 2012: Children in an urban world. UNICEF United Nations Children's Fund. February 2012. New York, NY

Join your Sections's International Child Health Network

The International Child Health Network (ICHN) is a dynamic, free, web-based network aimed to actively support meaningful collaborations among pediatricians and others who are working to improve global child health.

The site is accessible at: www.ichn.org.

Global Immunization Corner

Donna Staton, MD, MPH, FAAP, Past Chair and SOICH Representive at UN Foundation's Shot@Life Global Vaccine Advocacy Event in Washington, DC—YOU can (should) do this, too!!

Some quick questions for you:

1. Are you so busy that you don't have time for any new activity, no matter how small, unless it's effective, efficient, fun, makes the world a better place, AND makes you feel better?
2. Are you interested in helping reduce the number of child deaths from vaccine-preventable disease?
3. Do you work with residents, medical students, high school kids, or a church or community organization?
4. Would you like to speak about what we can do to increase access to vaccines for ALL children, but the thought of making the power point means you'll never get to it?
5. Are you the type willing to commit a little time or talent, but not treasure—or, do you prefer to just write a small check and be done with it?

If you answered "yes" to any of the above, there's good news! Thanks to the partnership between the Shot@Life Campaign and the AAP, executing on some of the above is not hard to do at all. This February, I had the privilege of representing SOICH and the AAP at a Shot@Life Champions Summit in Washington, DC and was incredibly impressed with what was accomplished, and with the tools Shot@Life provides to make it easier for us, as busy pediatricians, to advocate for more support and funding for global vaccines.

Shot@Life, a campaign of the United Nations Foundation, seeks to use grassroots engagement to raise awareness among US citizens regarding vaccine-preventable diseases. The AAP is one of the founding partners, along with The Bill & Melinda Gates Foundation, Rotary International and others. The long-term goals of this campaign are to:

- ***Reduce the 1.5 million annual vaccine-preventable child deaths by increasing vaccine access***
- ***Help eradicate polio in your lifetime (even if you have gray hair)***
- ***Increase U.S. government commitment to global vaccines***
- ***Increase awareness in the US on the importance of global vaccines***

During the Summit, 100 concerned citizens—moms, dads, pediatricians, residents, teachers and students—met with experts for training on global vaccine issues and current US foreign policy, and to learn media and advocacy skills. We then met with our own senators and congressional representatives on Capitol Hill to convince them what a good taxpayer investment vaccines are. Over 200 such meetings took place in one day!

Equally important, we also learned about the many specific ways we can educate and involve others, by writing articles, establishing relationships with our senators/representatives locally, hosting educational events, and teaching others (neighbors, peers and even our own patients) about how important it is for ALL of us to say SOMETHING about how critical vaccines are for ensuring a healthier, safer world, here and abroad.

Shot@Life and the AAP can provide you with a fabulous toolkit (handouts, slides, posters, etc.) for FREE to use in your office and community! To get started, e-mail the AAP Global Immunizations Team, order a toolkit, or visit the Shot@Life web site to learn more. Feel free to reach out to me directly as well!

At this moment when the voice of vaccine exemptors and budget cutting politicians is louder than ever, we REALLY need to speak up and let our policy makers know that this is one investment we can't afford NOT to make!

Making Early Child Development a Global Priority

Alexis Aplasca, M.D., Chief Resident, University of Hawaii Triple Board Program, Pediatrics, Psychiatry, Child & Adolescent Psychiatry. Photo by Megan Kwasniak, MD.

In 2011, The Lancet published a series of 2 articles on child development as a follow up to their previous related series published in 2007, highlighting that 200 million children globally are not meeting their developmental potential. These articles emphasize the importance of early childhood development as a global priority and highlight goals for program development and implementation in this area. Appropriate developmental programs that start prenatally are the foundation for physical, social, and emotional well-being with positive effects that are seen across the life span.

The first of these articles reviews the factors influencing developmental inequality focusing on modifiable risk factors in children under 5 years old in low and middle income countries. Prenatal risk factors, maternal nutrition, and depression have long-term implications on brain development and neurochemistry. As a result, birth weight, infant and child growth, and the cognitive and social-emotional development of children are affected. As the infant enters childhood, additional risk factors are identified, including stunted growth, nutritional deficiencies, environmental exposures, and infectious diseases – specifically HIV and malaria, and social factors such as exposure to violence and institutionalization. Breast feeding and maternal education can significantly improve a child's developmental trajectory through promoting health, creating a learning environment, increasing access to medical and mental health services, and utilization of available services. Addressing these multifactorial aspects of early child development will take ingenuity, collaboration, and action at all levels of the community.

The second article in the series is a report on the effectiveness of interventions for early child development that have been implemented in low and middle income countries. Several programs are aimed at parenting and educational support, early education, and alleviating poverty through cash transfer programs and were identified as effective. Review of the literature showed larger effect on more disadvantaged populations. However, countries continue to face the challenge of scaling up these programs and the issue of sustainability. Creative interventions being developed include expanding educational media and linking conditional cash transfers with nutrition and early child development interventions. Policy action and investment in education needs to be emphasized. Return on investment related a single component, achieving 50% preschool attendance, could have a benefit of more than $33 billion, and incorporation of nutritional and parenting programs would result in even larger gains. The economic cost of not investing in early child development is substantial.

The time for action is now. Strong research and innovation in early child development should continue to be at the top of the global health agenda. The stakes are high and evidence links that lack of investment in these areas result in substantial physical and developmental disabilities, malnutrition, lifetime consequences of poverty, and preventable illnesses. The World Health Organization and UNICEF have a number of free publications to promote the development of these programs. Standardization and utilization of these resources can greatly contribute to the growing body of information to assess the effectiveness of these interventions to compare across cultures, costs, and overcome barriers related to scaling up interventions and sustainability. Lastly, access to evidence-based and current literature is essential to promote sustainability within countries and communities. This list of select publications and resources supports programming in early child development and increases access to evidence-based materials.

Care for Child Development Package (2012): Comprehensive materials and training package to guide health workers and other counselors to help children and their families.
Materials available at:
http://www.who.int/maternal_child_adolescent/documents/care_child_development/en/index.html

Facts for Life (2010): A handbook targeted towards a wide audience that contains essential information and practical advice on pregnancy, childbirth, childhood illnesses, development, and care of children.
Materials available at:
http://www.unicef.org/publications/index_53254.html

Mental Health Gap Action Programme (2010): Intervention guide for mental health through primary care, including child development, ADHD, and epilepsy. Materials available at: http://www.who.int/mental_health/publications/mhGAP_intervention_guide/en/index.html

Integrated Management of Childhood Illness: Caring for Newborns and Children in the Community (2011): Programs materials designed to train lay community health workers assess and treat sick children ages 2-59 months. Materials available at: http://www.who.int/maternal_child_adolescent/documents/imci_community_care/en/index.html

Manual on Paediatric HIV Care and Treatment for District Hospitals (2011): A manual for use by doctors, mid-level providers, and other senior health workers who are responsible for the care of HIV-infected children in district hospitals at the primary referral level. Materials available at: http://whqlibdoc.who.int/

publications/2011/9789241501026_eng.pdf
Community Based Rehabilitation Guidelines (2010): Comprehensive manual on the development and strengthening of existing programs supporting individuals with disabilities.
Materials available at:
http://www.who.int/disabilities/cbr/guidelines/en/index.html

Management of Sick Children by Community Health Workers: Intervention Models and Programme Examples (2006): Provides examples of intervention models in select developing countries and NGOs with description of the operational aspects and sustainability. Materials available at: http://www.unicef.org/publications/files/Management_of_Sick_Children_by_Community_Health_Workers.pdf

Programming Experiences in Early Child Development (2006): Booklet designed to give examples to program implementers a source of ideas, suggestions, and inspiration. Materials available at: http://www.unicef.org/earlychildhood/files/programming%20experiences%20in%20early%20childhood.pdf

WHO Publications: http://www.who.int/publications/en/
UNICEF Publications: http://www.unicef.org/publications/index.html
HINARI – Access to Research in Health: http://www.who.int/hinari/en/

Blue Trunk Library: Created for health care professionals working outside of cities and remote areas who do not have access to health information. Includes a collection of evidence-based books on medicine, public health, with 3-4 subscriptions to health and biomedical centers. Cost: US $2000. http://www.who.int/ghl/mobile_libraries/bluetrunk/en/

Red Trunk Library: Library kit containing a wide selection of evidence-based technical books on topics related to public health and disaster management, developed to be used in emergencies, including those in remote areas. Cost: US$2500. http://www.emro.who.int/information-resources/health-knowledge-initiatives-rtl/red-trunk-library.html

References:
Walker SP, Wachs TD, Grantham-McGregor S, Black MM, Nelson CA, Huffman SL, Baker-Henningham H, Chang SM, Hamadani JD, Lozoff B, Gardner JM, Powell CA, Rahman A, Richter L. Inequality in early childhood: risk and protective factors for early child development. Lancet. 2011 Oct 8;378(9799):1325-38.

Engle PL, Fernald LC, Alderman H, Behrman J, O'Gara C, Yousafzai A, de Mello MC, Hidrobo M, Ulkuer N, Ertem I, Iltus S; Global Child Development Steering Group.Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries. Lancet. 2011 Oct 8;378(9799):1339-53.

Selected SOICH Activities

I-CATCH

- International Community Access to Child Health Grant Program
- Grants for international AAP Fellows/SOICH'ers/affiliates living & working in developing countries
- $2,000 a year x 3 years, 18 ongoing projects, 4-6 new projects annually
- Domestic SOICH'ers help mentor & partner with colleagues abroad
- Examples: HIV/AIDS Education for Public School Staff (Botswana), Parenting Education of Child Passenger Safety (China), TB Dots for Kids (Philippines), Diagnosis & Reference of Undernourished Children (El Salvador)

INTERNATIONAL CHILD HEALTH NETWORK

- Actively fosters collaborations between SOICH'ers & others focused on global child health
- Projects may include relief and development work, humanitarian service, equipment/supply donation, education, research, fund raising, and visitor exchange
- Get connected at: www.ichn.org

SECTION ANNUAL PROGRAM

- Section-sponsored education program brings global health leaders to AAP NCE each year
- Discussion & debate on pressing issues/concerns/actors in global child health (e.g. HIV, TB, malaria, malnutrition, community-based care, NGOs, vaccines, funding opportunities, newborn health, etc)
- 2012 program included: Inauguration abstract and poster sessions displaying ICH projects and the keynote by Ambassador Mark Dybul – "Toward Ending Preventable Child Deaths"

RESIDENT INTERNATIONAL ELECTIVE AWARD

- $1,000 to support international electives,

HAITI INITIATIVE

- Grants given to Haitian Pediatric Society to help build pediatric care capacity in this hemisphere's poorest country

SECTION NEWSLETTER

- Published every other month. 3 issues each year critically review global child health articles/publications, 3 issues each year discuss Section projects and other news of interest to Section members

SECTION BOOKS

- "Working in International Child Health"
- "Atlas of Pediatrics in the Tropics and Resource-Limited Settings"
- Edited & authored by Section members, portion of revenues fund Section programs

GLOBAL CHILD HEALTH EDUCATIONAL MODULES

- SOICH provides human & financial resources to increase pediatric residents' understanding/ competency in global child health through this comprehensive program of case-based scenarios in development

SECTION WEBSITE & LISTSERV

- Abundant resources (field opportunities, potential funding sources, etc) at www.aap.org/sections/ich/
- Be part of an active listserve of ~1000 pediatricians with active interests in global child health

SECTION EXECUTIVE COMMITTEE

- Section membership confers eligibility to be a future leader of the Section!

... AND MUCH MORE!

Section on International Child Health Leadership (*Executive Committee)

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