The Burden of Influenza in Young Children, 2004–2009

Influenza is an important cause of medically attended illness in young children before expanding influenza vaccine recommendations for children. This study characterizes the health care burden of influenza in young children over 5 years (2004–2009) when influenza vaccine recommendations were expanded to all children aged ≥6 months.

Disparities in Unmet Need for Care Coordination: The National Survey of Children’s Health

Care coordination has been proposed as a key mechanism for increasing quality and reducing costs of care. Little is known about the degree to which disparities exist in care coordination or whether having high-quality primary care attenuates disparities.

A considerable proportion of parents reported unmet care coordination needs for their children, especially parents of children with special health care needs. Black and Latino children also may have more unmet needs because they received family-centered care less often.

Complementary and Alternative Medicine Use by Pediatric Specialty Outpatients

Complementary and alternative medicine (CAM) use is common among children, especially those with chronic, recurrent, or incurable conditions. Concurrent use of CAM with conventional medications is of concern and needs to be assessed, especially in vulnerable patient populations. CAM use is high among pediatric cardiology, gastroenterology, neurology, oncology, and respiratory patients, most of whom use CAM concurrently with conventional care. This study provides additional evidence to suggest the use of CAM be included in routine patient history taking.

Playground Safety and Quality in Chicago

Quality urban playgrounds that are accessible and safe support physical activity and decrease injury rates. Little is known about the quality and accessibility of playgrounds in Chicago public parks.

Most playgrounds in Chicago are in fair condition, yet access to quality playgrounds varies by neighborhood. Public/private collaboration can lead to improved playgrounds, and failing playgrounds can be improved with modest investment.

A Model to Determine the Likely Age of an Adolescent’s First Drink of Alcohol

First drink before age 15 greatly increases the likelihood for later alcohol abuse or dependence. Separate investigations have linked many variables to alcohol initiation, but few have attempted to identify the optimal combination of predictors for age of alcohol initiation.

This article supports the screening questions selected in the joint National Institute on Alcohol Abuse and Alcoholism and the American Academy of Pediatrics initiative to identify and initiate intervention in youth at risk for early use of alcohol.
Physician Advice to Adolescents About Drinking and Other Health Behaviors

Evidence regarding effectively screening and counseling adolescents about unhealthy alcohol use is accumulating. Young adults aged 18 to 24, those most at risk for excess alcohol consumption, are often not asked or counseled by physicians about unhealthy alcohol use.

In 2010 among US 10th graders (age 16), 36% drank, 28% binged, and 23% were drunk in the past month; although 82% saw a doctor, 54% were asked about drinking but only 17% were advised to reduce or stop drinking.

Capture of Complexity of Specialty Care in Pediatric Cardiology by Work RVU Measures

Few reports have explored the measurement validity of the relative value unit (RVU) system, particularly in pediatrics. The RVU system, although broadly applied in health care settings, was developed for the adult population and thus may possess unique inadequacies in pediatrics.

We found deficiencies in the ability of the RVU system to capture features of case mix complexity and differences related to age. Additional investigation may be warranted to determine the validity of RVU as a measurement tool in pediatrics.

Utility of Hepatic Transaminases in Children With Concern for Abuse

Routine screening of potentially abused children with hepatic transaminases has been recommended, using a threshold of 80 IU/L to determine the need for further testing, but practice is variable, and this threshold has not been validated. This study identified abdominal injury in a significant fraction of potentially abused children with transaminases >80 IU/L.

Presleep Activities and Time of Sleep Onset in Children

Presleep activities (e.g., television watching) have been implicated in the declining sleep duration of young people. However, previous research reported on selected presleep activities, raising the possibility that important activities in this period are not accounted for. This is the first study in youth to construct the presleep period by using a use-of-time approach. Twin trajectories of higher screen time and lower nonscreen sedentary time/self-care were evident in late sleepers, with the opposite pattern occurring in early sleepers.

Vaccination Site and Risk of Local Reactions in Children 1 Through 6 Years of Age

Previous evaluations of local reactions after the fifth diphtheria-tetanus-acellular pertussis (DTaP) vaccine in children 4 to 6 years of age have revealed that vaccination in the thigh is associated with a lower risk of local reactions compared with vaccination in the arm.

Among children 12 to 35 months of age, injection of DTaP vaccine in the thigh is associated with a lower risk of local reactions compared with vaccination in the arm.

Effectiveness of a Safe Routes to School Program in Preventing School-Aged Pedestrian Injury

A number of studies have demonstrated community acceptance of Safe Routes to School interventions as well as their success in addressing perceptions about safety, but little is known about their effectiveness in reducing pedestrian injury risk in school-aged children.

Implementation of a Safe Routes to School program in New York City may have contributed to a substantial reduction in school-aged pedestrian injury rates, with the effects largely limited to school-travel hours in census tracts with these interventions.

Nine-Year Follow-up of a Home-Visitation Program: A Randomized Trial

A number of studies have shown that home-visiting interventions can improve outcomes for children being raised in families that face multiple adversities. It is less clear how well these benefits are sustained over long periods.

The current study shows that the Early Start program of home visitation has benefits in terms of reducing child abuse, increasing parental competence, and improving childhood behavioral adjustment for up to 9 years, suggesting long-term benefits of home visitation.

Differences in Quality of Care Among Non–Safety-Net, Safety-Net, and Children’s Hospitals

Previous studies suggest that hospitals under the greatest financial strain may be more prone to adverse events because they have limited resources to invest in quality and safety.

The patient population served, rather than hospital category, best predicts measured quality, underscoring the need for robust risk adjustment when incentivizing quality or comparing hospitals. Thus, problems of quality may not be systemic across hospital categories.

Pediatric Resident Debt and Career Intentions

Educational debt is an important topic in pediatrics. Deciding on a career path is a critical personal decision, shaped by multiple factors. The relationship between educational debt and career choice is unclear.
Educational debt among graduating pediatric residents is high and continues to increase. Higher debt is one factor that may lead residents toward a career in primary care or hospitalist practice, rather than pursuing fellowship training and a subspecialist career.

**Stillbirth and Newborn Mortality in India After Helping Babies Breathe Training**

A few methodologically sound studies demonstrate that birth attendant training in essential newborn care, including neonatal resuscitation, may play a tremendous role in averting a substantial proportion of the 2.6 million stillbirths and 3.1 million neonatal deaths that occur annually.

This before-and-after study evaluated the effectiveness of the Helping Babies Breathe basic neonatal resuscitation interactive skill-based educational program to improve providers’ knowledge and skills and to reduce stillbirth and neonatal mortality in southern India.

**Newborn Mortality and Fresh Stillbirth Rates in Tanzania After Helping Babies Breathe Training**

Birth asphyxia, or failure to initiate or sustain spontaneous breathing at birth, contributes to ~27% to 30% of neonatal deaths in resource-limited countries, including Tanzania. Without change, these countries will fail to meet Millennium Development Goal 4 targets by 2015.

The Helping Babies Breathe program was implemented in 8 hospitals in Tanzania in 2009. It has been associated with a sustained 47% reduction in early neonatal mortality within 24 hours and a 24% reduction in fresh stillbirths after 2 years.

**Group B Streptococcus Late-Onset Disease: 2003–2010**

A minority of infants with group B streptococcus (GBS) late-onset disease (LOD) are born to GBS-colonized mothers. Intrapartum prophylaxis does not appear to prevent late-onset GBS disease, implicating infected breast milk and nosocomial or community sources in these cases.

Most mothers of neonates with LOD are identified at diagnosis with anogenital GBS infection. Even in the absence of mastitis, GBS-infected milk may be a source of LOD. Intrapartum antibiotic prophylaxis is associated with both delayed and milder presentation of LOD.

**Exposure to Alcohol Advertisements and Teenage Alcohol-Related Problems**

The influence of alcohol advertising on underage drinking has been demonstrated in both cross-sectional and prospective studies. What is not well known is whether this increase in drinking leads to more problems related to alcohol consumption. Exposure to alcohol advertising and liking of those ads in grade 7 has a significant influence on the severity of alcohol-related problems in grade 10 and that influence is mediated by growth in alcohol use from grades 7 to 9.

**Early Adolescent Music Preferences and Minor Delinquency**

Adolescent music preferences have been linked to problem behavior in cross-sectional studies. Particularly, preferences for loud, rebellious, and so-called “deviant” music predict externalizing problem behavior, such as minor delinquency and substance abuse. There is a theoretical rationale for associations between music preferences and minor delinquency. Preferences for rock, African American music, and electronic dance music indicate later minor delinquency. Music preferences are better markers of later delinquency compared with early adolescent delinquency.

**Maternal Characteristics and Perception of Temperament Associated With Infant TV Exposure**

The American Academy of Pediatrics recommends that television (TV) exposure should be discouraged among children <2 years; yet, TV exposure is high among infants and toddlers, particularly those with younger, depressed, less educated, or minority mothers.

We found high levels of infant TV exposure, use of devices limiting movement, and feeding in front of the TV. Mothers, especially obese mothers, may use TV to entertain more active or fussier infants.

**Symptoms and Otoscopic Signs in Bilateral and Unilateral Acute Otitis Media**

Bilateral acute otitis media (AOM) is considered more severe than unilateral AOM, and several guidelines recommend more active management of bilateral AOM. However, severity of symptoms and otoscopic signs of bilateral and unilateral AOM have previously not been comprehensively studied.

Bilateral AOM seems to be clinically only a slightly more severe illness than unilateral AOM. When assessing AOM severity, bilaterality should not be used as a determining criterion; instead, the child’s symptoms together with otoscopic signs should also be acknowledged.

**Developmental Function in Toddlers With Sickle Cell Anemia**

Children with sickle cell anemia are at risk of central nervous system damage, including stroke. Even children without evidence...
of abnormality on neuroimaging are at risk of significant declines in neurocognitive function, starting at early ages. This study adds the observation that poorer neurocognitive and behavioral function is associated with older age in infants and toddlers with sickle cell anemia, much earlier than previously expected.

Prehypertension and Hypertension in Community-Based Pediatric Practice
Prevalence of hypertension in children increased significantly over the past few decades, tracks into adulthood, and is a major risk factor for cardiovascular disease. However, current prevalence estimates in children have largely been based on studies conducted in school environments.

The current study reports the prevalence of childhood hypertension in community pediatric practice, which provides a typical pediatric examination environment, unlike blood pressure measured in school. The results show a significantly lower prevalence than what has previously been reported.

Population-Based Estimates of In-Unit Survival for Very Preterm Infants
Survival estimates for preterm infants are vital for counseling parents, informing care, and planning services. Widely use estimates of in-unit survival derived from a large UK population for infants born at <33 weeks' gestational age have been available since 1999.

These survival charts have been updated and will be of use to clinicians, parents, and managers. An alternative method for graphical representation of survival probabilities is offered: contour survival plots.

Randomized Trial of Iron Supplementation versus Routine Iron Intake in VLBW Infants
The American Academy of Pediatrics recommends that infants <1500 g birth weight receive an iron intake of 4 mg/kg per day. There are no randomized trials to support this recommendation. This trial compared the effect of iron supplementation of 2 mg/kg per day on the hematocrit at 36 weeks' postmenstrual age. This study concluded that iron supplementation does not affect the 36-week hematocrit or the number of transfusions in infants <1500 g.

Growth of Extremely Preterm Survivors From Birth to 18 Years of Age Compared With Term Controls
Children born at very low birth weights have significant catch-up weight gain but differences in height remain. Their BMI, however, tends not to be higher than expected. Data are lacking regarding representative cohorts, defined by gestation and compared with contemporaneous controls. In a geographic cohort of extremely preterm participants followed until age 18, compared with term controls, weight differences diminish over time, and height differences persist. BMI at age 18 is similar. Height at age 2 is a better predictor of final height than midparental height.

Characteristics of the Strengths and Difficulties Questionnaire in Preschool Children
Validated questionnaires can improve the identification of psychosocial problems among children. The Strengths and Difficulties Questionnaire (SDQ) 3-4 is a promising option. However, no studies are available that examine the psychometric properties of the SDQ parent form 3-4.

The results of this study show that the SDQ 3-4 is a valid tool for the identification of psychosocial problems in preschool-aged children.

A Randomized Clinical Trial of a Web-Based Tobacco Cessation Education Program
Children exposed to second-hand smoke have high rates of hospitalization for respiratory illness. These visits represent a “teachable moment” when parental smokers can be motivated to quit. However, pediatric health care practitioners receive little training in tobacco cessation.

The Web-Based Respiratory Education About Tobacco and Health online training program was effective at increasing the provision of an effective tobacco cessation intervention by pediatric hospital-based respiratory therapists, registered nurses, and nurse practitioners to adult smokers.

Paternal Mental Health and Socioemotional and Behavioral Development in Their Children
Paternal mental disorders during the postnatal period are associated with an increased risk for behavioral and emotional problems in their children; however, less is known about the effect of fathers’ mental health during pregnancy on children’s development.

The study demonstrated a positive association between fathers’ prenatal mental health and their children’s subsequent socioemotional and behavioral development. Psychological distress in fathers was associated with a risk for emotional difficulties in their children at 36 months of age.

Physical Activity and 3-Year BMI Change in Overweight and Obese Children
Effective interventions are still elusive for the large numbers of children affected by overweight/obesity. The value of targeting
physical activity (PA) remains unclear because its predictive relationship with improved BMI is still surprisingly poorly quantified. In overweight and mildly obese children presenting to primary care, 3-year changes in PA (especially the moderate-vigorous component) predicted BMI outcomes. However, the effect was small, possibly explaining the disappointing BMI outcomes of brief primary care interventions targeting PA.

**Risk Factors for Renal Injury in Children With a Solitary Functioning Kidney**

A reduced nephron number is associated with glomerular hyperfiltration, resulting in renal injury such as hypertension, proteinuria, and chronic kidney disease. Patients with a solitary functioning kidney have an increased risk of dialysis in early adulthood. This study demonstrates that a subset of children with a solitary functioning kidney progress toward renal injury during childhood. Risk factors for renal injury are ipsilateral anomalies of the kidney and urinary tract and small renal length.

**Validation of Rapid Neurodevelopmental Assessment for 2- to 5-Year-Old Children in Bangladesh**

In inverse proportion to the steadily declining under-5 mortality rate, prevalence of childhood disability has doubled in the past decade in Bangladesh. The Rapid Neurodevelopmental Assessment (RNDA) tool has been shown to be reliable and valid for assessment of a range of neurodevelopmental impairments (NDIs) and disabilities in children younger than 2 years. There is currently a lack of professional expertise for assessing NDIs in 2- to 5-year-old children in low- and middle-income countries. We developed a set of instruments as part of the RNDA for administration by a single professional with experience in child development to assess >2- to 5-year-old children for a wide range of NDIs. The tool was acceptable to mothers, interrater reliability was high, and proportions of children with NDIs were elevated among the lowest income groups and in stunted children, demonstrating discriminant validity. The RNDA was valid for identifying >2- to 5-year-old children with a range of NDIs, especially in cognitive, behavior, and motor functions. Validity of the RNDA for vision, hearing, and seizure disorders needs further research.

**Hospital Admissions for Childhood Asthma After Smoke-Free Legislation in England**

A small number of studies have found that the introduction of smoke-free legislation has been associated with a reduction in hospital admissions and emergency department visits for asthma. The implementation of smoke-free legislation in England was associated with an immediate 8.9% reduction in hospitalizations for asthma along with a decrease of 3.4% per year.

**Surfactant Administration via Thin Catheter During Spontaneous Breathing: Randomized Controlled Trial**

A policy of intubation, mechanical ventilation, and surfactant administration is commonly used for the treatment of respiratory distress syndrome worldwide; however, subsequent development of bronchopulmonary dysplasia remains as risk with this standard approach. Noninvasive surfactant administration technique during spontaneous breathing (Take Care) along with nasal continuous positive airway pressure support successfully reduces the need for further respiratory support and bronchopulmonary dysplasia rate in very low birth weight infants.

**Association of Maltreatment With High-Risk Internet Behaviors and Offline Encounters**

Ninety-five percent of American adolescents have Internet access, and 80% use online social networking sites. Current understanding of high-risk Internet behaviors, including exposures to sexually explicit content, provocative social networking profiles, sexual solicitations, and offline encounters, has not kept pace. Substantiated maltreatment emerged as a unique risk factor for adolescents’ high-risk Internet behaviors. The moderating influence of parenting quality and monitoring was also explained. Findings will enhance media literacy programs to promote the safe and optimal use of the Internet.

**Reference Values of Induced Sputum Cytology in Healthy Children in Guangzhou, Southern China**

Induced sputum cytology is a routine test in diagnosing chronic cough. Although the reference range has been established in adults, inconclusive findings in children have been due to problematic study design, sample size, and limited publications in China or worldwide. This is the first successful attempt to establish the reference range of induced sputum cytology in Chinese children. The results of cytology were not found to be influenced by gender, age, and passive smoking as these factors may do in adults.

**Memory and Health-related Quality of Life in Severe Pediatric Epilepsy**

Research has suggested children with epilepsy are at risk for low health-related quality of life (HRQoL), which may be related...
to sociodemographic, neurologic, and neuropsychological variables. The role of memory has not been previously investigated.

We investigated memory and HRQoL in pediatric epilepsy. Memory and emotional/behavioral difficulty were related to low HRQoL, even when other variables were considered. Results reinforce the importance of neuropsychological assessment and suggest areas of psychological intervention.

**Effectiveness of a Web-Based Application to Monitor Health-Related Quality of Life**

Monitoring and discussion of patient-reported outcomes in clinical practice facilitates good communication between the patient and treating physician. However, studies on the use of health-related quality of life patient-reported outcomes in pediatric clinical practice are scarce.

A web-based application to systemically monitor health-related quality of life problems in pediatric rheumatology is effective in increasing awareness of psychosocial topics of the patient and the patient’s family, contributing to increased satisfaction of the pediatric rheumatologist with the care provided during consultation.

**Change in Prevalence of Congenital Defects in Children With Prader-Willi Syndrome**

The Prader-Willi phenotype is widely discussed in the literature. However, the prevalence of specific congenital defects in children with Prader-Willi syndrome is not well-described.

This study presents epidemiological data from children with Prader-Willi syndrome and demonstrates that these children have a significantly increased risk of having certain congenital defects. The presence of defects is independent of the etiologic subtypes.

**Intestinal Microbiota of Infants With Colic: Development and Specific Signatures**

Colic affects many infants, with incidence rates of up to 25%. The pathogenesis is not well understood. Initial studies based on traditional culturing approaches and in infants >6 weeks of age point at abnormalities in intestinal microbiota. Infants with colic showed lower microbiota diversity and stability than did control infants in the first weeks of life. Colic/control differences in the abundance of certain bacteria were also found at age 2 weeks. These microbial signatures possibly explain the excessive crying.

**Medical Complexity and Pediatric Emergency Department and Inpatient Utilization**

Children with chronic conditions use the pediatric emergency department (PED) more frequently than children without chronic conditions. To date, no one has examined how medical complexity relates to PED use and disposition.

Varying degrees of medical complexity among children with chronic conditions are associated with increased PED length of stay, inpatient admission, and PED visit frequency. Clinical Risk Group software is able to identify disproportionate users of PED and hospital resources.

**Parental Explicit Heuristics in Decision-making for Children With Life-threatening Illnesses**

Heuristics are decision-making aids or shortcuts that ease the task of making a wide variety of decisions in diverse contexts. Little is known about the heuristics that parents of children with serious illness use when confronting difficult decisions. Parents of children with life-threatening illnesses use several different types of heuristics, explicitly, in making sense of complex situations, making decisions, and communicating these decisions to others. Better understanding of these heuristics may improve communication and decision support.

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