Changes in Obesity Between Fifth and Tenth Grades: A Longitudinal Study in Three Metropolitan Areas

Obesity among youth can have immediate health effects as well as longer-term consequences during adulthood. Overweight/obese children and adolescents are much more likely than normal-weight children to become overweight/obese adults. This large, multisite longitudinal study examines patterns of exit from and entry into obesity between childhood and adolescence. Socioeconomic factors, body image, television habits, and parental obesity were important predictors of whether children remained obese or became obese.

Race, Otitis Media, and Antibiotic Selection

A previous study suggested that physicians in 1 practice network were less likely to diagnose otitis media (OM) and to prescribe broad-spectrum antibiotics for OM for black versus nonblack children. Nationally, black children with OM are more likely to receive guideline-recommended, narrow-spectrum antibiotics than nonblack children. These findings may reflect inappropriate treatment of OM with the use of broad-spectrum antibiotics in a majority of US children.

Health Outcomes in Young Adults From Foster Care and Economically Diverse Backgrounds

Youth in foster care are at higher risk of health problems at entrance and during their stays in care. Little is known about this group’s risk of health problems in young adulthood, in comparison with other populations of young adults.

This is the first prospective study to our knowledge demonstrating that former foster youth are at higher risk of chronic health problems than economically secure and insecure general population young adults.

Very Low Birth Weight, Infant Growth, and Autism-Spectrum Traits in Adulthood

Preterm birth and faster infant growth have been identified as independent risk factors for autism-spectrum disorders (ASD). However, associations between prematurity and ASD-related traits as a continuum and effects of infant growth among those born preterm are still little studied.

VLBW young adults reported higher levels of ASD-related traits, particularly traits related to poorer social skills. Within the VLBW group, faster growth in weight, height, and head circumference from birth to term was associated with lower levels of ASD-related traits.

Parent-Implemented Social Intervention for Toddlers With Autism: An RCT

Randomized controlled trials (RCTs) of intensive clinician-implemented interventions have demonstrated significant improvements in outcomes of toddlers and preschool children with autism spectrum disorder. RCTs of parent-implemented interventions have demonstrated improvements in parent skills, but generally they have not demonstrated effects on children’s outcomes.

This RCT found significantly greater improvements with individual home coaching on child outcome measures of social...
communication, adaptive behavior, and developmental level. These findings support the efficacy of a parent-implemented intervention using little professional time, which increases potential community viability.

**Age-Based Risk Factors for Pediatric ATV-Related Fatalities**

Younger age has been identified as an independent risk factor for all-terrain vehicle (ATV)-related injuries. Since the mid-1980s, one-third of ATV-related deaths have involved children younger than 18 years of age.

Using national data, we found both similarities and differences between pediatric age groups in the contribution of known risk factors to ATV-related deaths. The observed differences suggest the importance of targeting injury prevention approaches to specific age ranges.

**Sex-Related Online Behaviors and Adolescents’ Body and Sexual Self-Perceptions**

Research suggests that appearance-focused messages and exaggerated depictions of sexual activity in the media negatively influence adolescents’ body and sexual self-perceptions. As adolescents increasingly use the Internet to explore their sexuality, health risks related to online behaviors should be identified.

This 4-wave study examined the prevalence and development of 2 receptive and 2 interactive sex-related online behaviors and their relations with adolescents’ body and sexual self-perceptions. It further investigated which parental strategies regarding Internet use may reduce risky sex-related online behaviors.

**Early Developmental Outcomes of Children With Congenital HHV-6 Infection**

Neurodevelopment can be adversely affected by viral infections. Human herpesvirus-6 (HHV-6) is similar to cytomegalovirus and can cause central nervous system disease. Congenital HHV-6 infection occurs in ~1% of live births, with unknown neurodevelopmental consequences.

HHV-6 congenital infection is associated with lower scores on the Bayley Scales of Infant Development II Mental Development Index compared with control infants at 12 months of age and may have a detrimental effect on neurodevelopment.

**Unconditional Regard Buffers Children’s Negative Self-Feelings**

Studies have shown that setbacks, such as receiving low school grades, lead children to experience negative self-feelings (eg, shame, insecurity, powerlessness). Psychological theory predicts that unconditional regard can buffer this adverse impact of setbacks. However, causal evidence is lacking.

This randomized field experiment shows that briefly reflecting on experiences of unconditional regard buffers children’s negative self-feelings after an academic setback 3 weeks later. Unconditional regard may thus be an important psychological lever to reduce negative self-feelings in youth.

**Pediatric Exposure to Laundry Detergent Pods**

Case studies, abstracts, and small-sample research studies have shown that laundry detergent pods pose important poisoning risks to young children.

From 2012 through 2013, 17,230 children exposed to laundry detergent pods were reported to US poison control centers. Among children exposed, 4.4% were hospitalized and 7.5% experienced a moderate or major medical outcome, including 1 confirmed death.

**Variability in ADHD Care in Community-Based Pediatrics**

In 2000/2001, the American Academy of Pediatrics published recommendations for attention-deficit/hyperactivity disorder (ADHD) care. According to pediatricians’ self-report of adoption of these guidelines, community-based ADHD care appears to be marginally adequate.

Using reviews of >1,500 patient charts, this study demonstrates that community-based ADHD care is not consistent with evidence-based practice. Furthermore, variability in much of community-based ADHD care is unrelated to the provider, suggesting that innovative, system-wide interventions are needed to improve ADHD care.

**Duration of Rhinovirus Shedding in the Upper Respiratory Tract in the First Year of Life**

Rhinoviruses are commonly detected in both acutely ill and asymptomatic infants and children. The finding may represent new infection or prolonged presence of rhinovirus RNA in the respiratory tract.

In young, otherwise healthy infants, shedding of RNA from the same rhinovirus strain rarely persisted longer than 30 days.

**Postnatal Growth Following Prenatal Lead Exposure and Calcium Intake**

Lead is an ubiquitous environmental pollutant, and no safe threshold for blood lead level in children has been discovered yet. Prenatal lead exposure affects growth of children.
Low level of prenatal lead exposure of <5.0 μg/dL affects postnatal children's growth, which was further intensified by low calcium intake.

Primary Ciliary Dyskinesia and Neonatal Respiratory Distress
Primary ciliary dyskinesia presents in infancy with unexplained neonatal respiratory distress, yet diagnosis is often delayed until late childhood. Earlier diagnosis facilitates earlier onset of therapy, which may help to reduce long-term pulmonary morbidity and mortality.

A diagnostic workup for primary ciliary dyskinesia should be considered in a term infant presenting with unexplained respiratory distress and either lobar collapse, situs inversus, or a prolonged oxygen therapy requirement (>2 days).

Regulations to Promote Healthy Sleep Practices in Child Care
Previous studies have examined state regulations for child care facilities and found substantial variation among states. None of these studies examined regulations related to healthy sleep practices, which is an important and often overlooked intervention target for obesity prevention.

We reviewed state regulations related to healthy sleep in child care and compared them to recent national recommendations put forth by the Institute of Medicine. We found that many states lacked regulations, highlighting an important and timely opportunity for improvement.

Sinusitis and Pneumonia Hospitalization After Introduction of Pneumococcal Conjugate Vaccine
Pneumococcal conjugated vaccines (PCVs) are known to decrease invasive pneumococcal disease in children, but their effect on pneumonia necessitating hospitalization is more variable across study sites, and effects on hospitalization for sinusitis have not been shown previously.

There was a significant decrease in hospitalizations for sinusitis in children <2 years of age, and hospitalization for pneumonia decreased in children aged <5 years after sequential introduction of PCV7 and PCV13.

Validation of a Clinical Prediction Rule for Pediatric Abusive Head Trauma
Pediatric Brain Injury Research Network investigators recently derived a highly sensitive clinical prediction rule for pediatric abusive head trauma (AHT).

The performance of this AHT screening tool has been validated. Four clinical variables, readily available at the time of admission, detect pediatric AHT with high sensitivity in intensive care settings.

Disability-Adjusted Life-Year Burden of Abusive Head Trauma at Ages 0–4
Children who suffer abusive head trauma (AHT) have lasting health and development problems. AHT can reduce life expectancy dramatically. AHT’s contribution to the burden of disease has been estimated only as part of a broad category of intentional injury.

The DALY burden of a severe AHT case averages 80% of the burden of death, with most survivors dying before age 21 years. Even mild AHT is extremely serious, with lasting sequelae that exceed the DALY burden of a severe burn.

Changes in Child Mortality Over Time Across the Wealth Gradient in Less-Developed Countries
In developed countries, child health disparities across wealth gradients are commonly widening; at the same time, child mortality in low- and middle-income countries is declining.

Whether these declines are associated with widening or narrowing disparities is unknown.

A systematic analysis of the evidence on child mortality gradients by wealth in less-developed countries shows that mortality is declining fastest among the poorest in most countries, leading to declining disparities in this important indicator of child health.

Cyber Dating Abuse Among Teens Using School-Based Health Centers
Cyber dating abuse victimization has been correlated with physical, sexual, and psychological adolescent relationship abuse.

This is the first clinic-based study of cyber dating abuse. Forty-one percent of youth reported cyber dating abuse victimization, female more than male respondents. Compared with non-exposed youth, abuse victims reported more sexual assault; female victims reported more contraceptive nonuse and reproductive coercion.

A Comparison of Interferon-γ and IP-10 for the Diagnosis of Tuberculosis
IP-10 is a novel immunologic marker for tuberculosis (TB) infection. It has been suggested that IP-10 may perform better in children compared with the QuantiFERON test, but only a few
studies have investigated IP-10 for diagnosing active TB in
children.
This study is the first to investigate IP-10 and QuantiFERON for
diagnosing TB in children by using consensus classifications.
Both IP-10 and QuantiFERON exhibited poor performance in
children from a high-burden setting, and performance was
especially compromised in young children.

Adolescent Vaccine Co-administration and
Coverage in New York City: 2007–2013
National adolescent vaccination coverage estimates in 2013
among 13- to 17-year-olds are 86% for Tdap vaccine and 78% for
MCV4. Comparatively, coverage with ≥3 doses of HPV vaccine
is 38% among girls and 14% among boys.
One-fourth of 11-year-olds had HPV vaccine co-administered
with Tdap vaccine, compared with two-thirds who had MCV4 co-
administered. Whereas by age 17 years, >92% received Tdap
vaccine and MCV4, only half of girls and one-fifth of boys
completed HPV vaccination.

Cerebral Palsy Among Children Born Moderately
and Late Preterm
The incidence of cerebral palsy is dependent on the gestational
age in very preterm infants and risk factors have been iden-
tified for term infants. The risk has also proved to be greater
among late preterm births compared with term.
The incidence of cerebral palsy was 24-fold in moderately
preterm and 6-fold in late preterm infants compared with full-
term infants. The most prominent risk factors included as-
phyxia and intracranial hemorrhage. The incidence diminished
over time and with increasing gestational age.

Motor Severity in Children With Cerebral Palsy
Studied in a High-Resource and Low-Resource
Country
There is variability in cerebral palsy prevalence estimates in
low-resource countries, related to definitions, detection of
milder cases, diagnosis age, and adequate training for
clinicians. Thus, differences in prevalence and motor pat-
terns between high- and low-resource countries remain
unclear.

There were more children with dystonia and less with spasticity
in Bangladesh compared with Australia (cerebral palsy
diagnosis/motor classifications were consistent between
settings). Differences in motor patterns between high- and
low-resource countries have profound implications for early
detection and appropriate interventions.

Gender Differences in Adult-Infant Communication
in the First Months of Life
Studies have shown that reciprocal vocalizations between
mother and infant have positive effects on language de-
velopment. It has been shown that girls acquire vocabulary
and language skills earlier than boys.
Mothers more readily respond to their infant’s vocal cues than
fathers, and infants show a preferential vocal response to
their mothers in the first months of life. Mothers respond
preferentially to infant girls versus boys at birth and 44 weeks.

A Randomized Trial on Screening for Social
Determinants of Health: the iScreen Study
Despite growing interest around clinical screening for health-
related social and environmental risk factors, little evidence
exists regarding screening formats that maximize disclosure
of psychosocial information.
This study compares psychosocial and socioeconomic adversity
disclosure rates in face-to-face interviews versus electronic
formats in a large, urban pediatric emergency department.

Growth Hormone Therapy, Muscle Thickness, and
Motor Development in Prader-Willi Syndrome: An
RCT
Infants with Prader-Willi syndrome suffer from hypotonia, muscle
weakness, and motor developmental delay and have increased
fat mass combined with decreased muscle mass. Growth hor-
mone improves body composition and motor development.
Ultrasound scans confirmed decreased muscle thickness in
infants with Prader-Willi syndrome, which improved as
result of growth hormone treatment. Muscle thickness was
correlated to muscle strength and motor performance.
Catch-up growth in muscle thickness was related to muscle
use independent of growth hormone.

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