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## Young Adult Health

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David Rosen, MD, MPH

Alain Joffe, MD, MPH

Editors

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# ADOLESCENT MEDICINE: STATE OF THE ART REVIEWS

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**ADOLESCENT MEDICINE:  
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# **Adolescent Medicine: State of the Art Reviews**

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University of New Mexico  
School of Medicine  
Albuquerque, New Mexico

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School of Medicine  
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### EDITORS-IN-CHIEF

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**DONALD E. GREYDANUS, MD, Dr. HC (ATHENS)**, Professor & Founding Chair,  
Department of Pediatric & Adolescent Medicine, Western Michigan University  
School of Medicine, Kalamazoo, Michigan

### GUEST EDITORS

**DAVID ROSEN†, MD, MPH**, Clinical Professor of Pediatrics, Internal Medicine and  
Psychiatry, University of Michigan Medical School, Ann Arbor, Michigan

**ALAIN JOFFE, MD, MPH**, Associate Professor of Pediatrics, Johns Hopkins  
Medical Institutions, Director, Student Health and Wellness Center,  
Johns Hopkins University, Baltimore, Maryland

### CONTRIBUTORS

**SOPHIE AIYER, PhD**, Department of Health Behavior and Health Education,  
School of Public Health, University of Michigan, Ann Arbor, Michigan

**JEFFREY J. ARNETT, PhD**, Department of Psychology, Clark University, Worcester,  
Massachusetts

**CLAIRE D. BRINDIS, DrPH**, Division of Adolescent and Young Adult Medicine,  
Department of Pediatrics, UCSF Benioff Children's Hospital; and Philip R.  
Lee Institute for Health Policy Studies, University of California, San Francisco,  
California

**LCDR CYNTHIA M. BRYANT, MD**, Department of Pediatrics, Adolescent  
Medicine, Naval Health Clinic Annapolis, Annapolis, Maryland

**COLLEEN DODICH, MD**, Department of Pediatric and Adolescent Medicine,  
Western Michigan University School of Medicine, Kalamazoo, Michigan

**RICHARD R. DOPP, MD**, University of Michigan Department of Psychiatry,  
Ann Arbor, Michigan

---

†Deceased.

**DANIEL EISENBERG, PhD**, University of Michigan School of Public Health, Ann Arbor, Michigan

**ANDRIA EISMAN, MPH**, Department of Health Behavior and Health Education, School of Public Health, University of Michigan, Ann Arbor, Michigan

**KERRY GANNON, MD**, Pediatric Resident, University of Wisconsin-Madison, Madison, Wisconsin

**LTC(P) JEFFERY P. GREENE, MD**, Department of Pediatrics, Adolescent Medicine, Tripler Army Medical Center, Oahu, Hawaii

**DONALD E. GREYDANUS, MD, Dr HC (ATHENS)**, Professor and Founding Chair, Department of Pediatric and Adolescent Medicine, Western Michigan University School of Medicine, Kalamazoo, Michigan

**COL JEFFREY W. HUTCHINSON, MD**, Department of Pediatrics, Adolescent Medicine, Walter Reed National Military Medical Center, Bethesda, Maryland

**RAYMOND J. HUTCHINSON, MS, MD**, Professor of Pediatrics and Communicable Diseases, Division of Hematology-Oncology; Associate Dean, Regulatory Affairs, University of Michigan Medical School, Ann Arbor, Michigan

**NICOLE JOHNSON, MA, MPH, DrPH**, Executive Director, Bringing Science Home, College of Public Health, University of South Florida, Tampa, Florida

**MAJ PATRICIA E. KAPUNAN, MD, MPH**, Department of Pediatrics, Adolescent Medicine, Walter Reed National Military Medical Center, Bethesda, Maryland

**SARAH K. LIPSON, MEd**, University of Michigan School of Public Health and School of Education, Ann Arbor, Michigan

**STEPHANIE MELTON, MPH, MA, PhD candidate**, Research Associate, Bringing Science Home, College of Public Health, University of South Florida, Tampa, Florida

**MEGAN A. MORENO, MD, MSED, MPH**, Associate Professor, Department of Pediatrics, University of Washington, Seattle Children's Research Institute, Seattle, Washington

**ELIZABETH M. OZER, PhD**, Division of Adolescent and Young Adult Medicine, Department of Pediatrics, UCSF Benioff Children's Hospital; and Office of Diversity and Outreach, University of California, San Francisco, California

**DILIP PATEL, MD, MBA**, Department of Pediatric and Adolescent Medicine, Western Michigan University School of Medicine, Kalamazoo, Michigan

**HELEN D. PRATT, PhD**, Professor, Department of Pediatric and Adolescent Medicine, Director, Division of Behavioral and Developmental Pediatrics, Western Michigan University School of Medicine, Kalamazoo, Michigan

**FRANCES PREVATT, PhD**, Department of Educational Psychology, Florida State University, Tallahassee, Florida

**ANTHONY ROSTAIN, MD, MA**, Department of Psychiatry, University of Pennsylvania, Philadelphia, Pennsylvania

**TY S. SCHEPIS, PhD**, Texas State University, Department of Psychology, San Marcos, Texas

**JAZMYN T. SCOTT, MPH**, Division of Adolescent and Young Adult Medicine, Department of Pediatrics, UCSF Benioff Children's Hospital, University of California, San Francisco, California

**SARAH A. STODDARD, PhD**, Division of Health Promotion and Risk Reduction, School of Nursing, University of Michigan, Ann Arbor, Michigan

**JENNIFER L. TANNER, PhD**, Institute for Health, Health Care, and Aging Research, Rutgers University, New Brunswick, New Jersey

**BRIAN E. TAPSCOTT, MA**, Texas State University, Department of Psychology, San Marcos, Texas

**MARK THOMAS, MD**, Student Health Center/University Medical Center, College of Community Health Sciences, The University of Alabama, Tuscaloosa, Alabama

**NATALIE TRUBA, MA**, Doctoral Candidate at Western Michigan University, Department of Psychology, Psychologist and Family Therapist, Department of Pediatric and Adolescent Medicine, Western Michigan University School of Medicine, Kalamazoo, Michigan

**MARC A. ZIMMERMAN, PhD**, Department of Health Behavior and Health Education, School of Public Health, University of Michigan, Ann Arbor, Michigan

CONTRIBUTORS





## YOUNG ADULT HEALTH

### CONTENTS

**Preface** xv  
Alain Joffe

**Approaching Young Adult Health and Medicine from a Developmental Perspective** 485  
Jennifer L. Tanner, Jeffrey J. Arnett

Young patients in their late teens are at risk for aging out of pediatric care. Becoming and remaining disconnected from the health care system contributes to high unmet need for services in the late teens and twenties. Lack of connection to a health care professional translates into increased health risk, risk that is particularly concentrated among young people with serious health conditions persisting from childhood and adolescence. In response, researchers recently have turned their attention to designing health care models specifically for transition-aged patients. The overarching goal of this article is to introduce the developmental perspective and argue that it is an essential lens for understanding health and health care needs of young people in their late teens and twenties. The history of adolescent medicine and the study of adolescence are reviewed to provide context for designing health care services for post-adolescents. Second, 2 theoretical propositions are introduced: (1) *emerging adulthood* is a distinct life stage (ages 18 to 25), and (2) emerging adults face a specific developmental task—recentering—becoming responsible for self and increasingly able to meet one's own needs. Last, a review of the literature from a developmental perspective offers unique insights into emerging adult health and health care needs. Specifically, (i) emerging adulthood is a period of good health and increasing well-being; (ii) psychiatric illness indirectly and directly poses significant risk to emerging adult health; and, (iii) restricted access to resources (ie, jobs, health care) compared to older age groups and variation in success recentering are distinct determinants of health in emerging adulthood.

The transition to young adulthood is accompanied by increased rates of mortality, engagement in risky health behaviors, and chronic conditions. Primary care visits can present a key opportunity for improving the health of young adults through preventive screening and intervention. In this article, we review (1) opportunities for improving young adult preventive health care as a result of the Affordable Care Act (ACA); (2) preventive service guidelines relevant to the young adult age group; (3) a new young adult tool to facilitate the delivery of preventive services; and (4) lessons learned in implementing adolescent guidelines that can inform young adult preventive care.

**Health Insurance, Patient Protection and Affordable Care Act,  
and Young Adults**

In 2010, 45% of young adults reported delaying needed care because of costs and 39% reported having difficulty paying medical bills. It is estimated that with full implementation of the Affordable Care Act in 2014, of the 14.8 million uninsured adults aged 19 to 29, 12.1 million could gain subsidized coverage. Some of the major determinants of health insurance coverage rates for young adults indicate that socioeconomic status (not able to afford the cost of insurance premiums), demographics, perceived value, and perceived need were the most significant determinants of health insurance status of young adults. The aim of the Affordable Care Act is to provide affordable and accessible health care to everyone. This law especially affects the young adult population since this population has often fallen through the cracks with regard to health care coverage. This article details the history and timeline of the law and goes into detail on specific portions of the law, and how it affects young adults specifically. It details portions of the law that have already been put into practice and portions of the law that will be instituted over the next few years. The article also touches on positive outcomes from the implementation of the law, along with shortcomings that have become evident.

**Social Media and Health**

538

Megan A. Moreno, Kerry Gannon

Use of social media is nearly ubiquitous among today's young adults. Popular social media sites among young adults include Facebook, LinkedIn, and Twitter. The rise of these new sites provides new benefits, including exposure to new ideas and experiences. However, there are also risks to use of social media, including exposure to influential information about substance use and other risky health behaviors. Future work is needed in order to investigate how social media can be used to promote healthy decisions and opportunities for young adults.

**Helping Those Who Serve: Care of the Young Adult Veteran**

553

Jeffrey W. Hutchinson, Jeffery P. Greene, Cynthia M. Bryant,  
Patricia E. Kapunan

The United States military is a unique organization that relies on young adults and requires culturally competent providers who recognize the needs of those with military experience. Four unique scenarios that a civilian provider may encounter illustrate additional considerations when caring for young adults in the military. A young man home between combat tours of duty, a reservist who needs a physical, a college student in the officer training program, and a veteran with a simple complaint highlight the possible presentations to nonmilitary physicians. The following resources offer tools to manage this distinctive population.

**Mental Health Among Late Adolescents and Young Adults from a Population-Level and Clinical Perspective**

573

Richard R. Dopp, Sarah K. Lipson, Daniel Eisenberg

This article reviews knowledge about mental health among young adults (ages 18–29) from both a population-level and a clinical perspective. Mental disorders account for a larger burden of disease than any other class of conditions for this age group in the United States. Although most clinical evidence is based on either children (younger than age 18) or general adult samples (18 and older), effective treatment options for young adults can be inferred from considering these bodies of evidence jointly. There are many effective psychotropic and psychosocial treatments for mental disorders prevalent in this age group, and promising population-level interventions are also emerging.

## **Nonmedical Use of Prescription Medications in Young Adults**

597

Brian E. Tapscoff, Ty S. Schepis

Nonmedical use of prescription medications (NUPM) is an area of increasing public health concern, particularly in young adults. Young adults, aged 18 to 25, have the highest annual and monthly rates of NUPM of any age group in the US, with notable consequences from using opioid, stimulant, tranquilizer and sedative medication. This article will review the literature on young adult NUPM, focusing first on the characteristics of those young adults engaged in NUPM. Then, we will examine the most common motives for NUPM, the sources young adults use to engage in nonmedical use and the related process of medication diversion. Finally, we will outline treatment and make specific recommendations of ways physicians can help prevent the spread of NUPM in young adults, completing the work by covering future directions for research.

## **The Transition from Adolescence to Adulthood and Associated Substance Use/Abuse**

611

Sarah A. Stoddard, Andria Eisman, Sophie Aiyer, Marc A. Zimmerman

The transition from adolescence to adulthood consists of mastering developmental tasks in preparation for the adult roles and responsibilities. Different transitional pathways exist, such as attending college, or forgoing postsecondary education to immediately enter the work force, that may influence health behaviors and health outcomes both during this transitional period and later in adulthood. Many youth experiment with alcohol and drug use during emerging adulthood and develop patterns of substance use that have been linked to health outcomes later in adulthood. This article describes differences in substance use behaviors among emerging adults who attend college versus those who do not attend college, and differences in health and psychosocial outcomes into adulthood.

## **Young Adults with Type 1 Diabetes: How to Help**

621

Nicole Johnson, Stephanie Melton

Young adults with Type 1 Diabetes face numerous challenges in the transition from dependence to independence. Their need for social support is strong and their need for relevant education about their diabetes is desperate. This article is both a discussion on the topic of young adult

transition and a commentary from a person who successfully transitioned with Type 1 diabetes. Through the use of first person stories, the challenges of young adulthood with diabetes are magnified. A description of a successful intervention is provided as a means to motivate strategic, creative thinking in service design for this population.

**Asperger Syndrome in Young Adulthood:**

**The Physician as Supportive Coach and Medical Advisor**

629

Donald E. Greydanus, Natalie Truba, Helen D. Pratt

*Asperger syndrome* is used to describe persons with social interaction dysfunction and stereotypic behavior despite having normal or above average intelligence as well as normal language development. In addition, a variety of comorbid conditions may be seen, including anger control problems, violence, depression, psychosis, anxiety, attention-deficit/hyperactivity disorder (ADHD), and sleep dysfunction. Its removal from the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (DSM-5) lexicon in 2013 does not negate this symptom complex, and such individuals will present to physicians as adolescents and young adults. This discussion considers various management options, including structured supportive counseling, selective psychopharmacology, and psychotherapy. Those with Asperger syndrome can lead successful lives as adults with support, nurturing, and coaching from their families, mentors, and treating physicians. Talents of these persons should be identified and used in a selective management plan.

**Primary Care for Adult Survivors of Childhood Cancer: Medical Needs and Required Strategies**

643

Raymond J. Hutchinson

Children and adolescents with cancer survive long-term at an ever-increasing rate. As these survivors become adults, they require adult care in a medical community not familiar with the risks of cancer survivorship and the required care such patients need. The burden of defining the risks and the care needs of survivors falls to the pediatric oncology community, whereas the delivery of care will fall with increasing burden on physicians trained in adolescent medicine, internal medicine, combined adult and pediatric medicine, and family practice. A meeting of the minds among these specialties, best orchestrated at the national level among the relevant

professional organizations, will be required to achieve the consensus required to meet the needs of survivors.

**ADHD Diagnosis and Treatment in College Students and Young Adults** 659  
Mark Thomas, Anthony Rostain, Frances Prevatt

This article provides an overview of the diagnosis and treatment of ADHD in college students and young adults, which has become an increasingly common and important disorder in this age group. While the symptoms of ADHD are by definition present during childhood or early adolescence, they go unrecognized in many individuals until they reach college or young adulthood. Making the diagnosis for someone in this age group may prove challenging because of the lack of readily available informants, their own lack of recall of details of their early life, and the numerous conditions that may mimic or co-occur with ADHD that must be considered. Pharmacologic management of ADHD in this demographic group must be individualized to provide optimal care. While stimulant medications remain first line, a limited number of nonstimulants agents have proven useful. Many barriers exist that make providing optimal pharmacologic care to this group challenging, since their needs are different than when they were younger and may change frequently as their lifestyles and schedules change. The psychosocial treatment options are emerging as non-pharmacologic alternatives that can play an important role in care for young adults with ADHD and include cognitive behavior therapy and ADHD coaching. Certain accommodations are often needed in the academic arena to provide an optimal educational experience for students with ADHD, and in the workplace to give young adults with this condition an equitable chance to succeed.

**Index**

681

## Preface

### Young Adult Health

There is always a great deal of satisfaction in seeing a task through to completion. But as I sit down to write the preface for this issue of *Adolescent Medicine: State of the Art Reviews* (AM:STARs) focusing on young adult health, that sense of satisfaction is greatly tempered by the loss of my coeditor and a tireless advocate for adolescents and young adults, David Rosen, MD. David and I had lively exchanges as we began planning this issue, exchanges that demonstrated the breadth of his expertise in this area. We finalized our list and began recruiting authors. Then came the sad news of his illness. David continued to work on this issue while he grappled with his illness and was instrumental in recruiting and guiding many of the authors whose work is included in this issue. I think he would have been pleased with this final product, and I am grateful to have had the opportunity to work with him on it, if only for a short time.

The existence of AM:STARs reflects the recognition that adolescence is a unique and critical stage of human development and that adolescent health is a legitimate field of scientific inquiry. The same cannot yet be said about young adults. Only recently has this age group become the focus of research, and the recent Institute of Medicine (IOM) meeting, *Improving the Health, Safety and Well-Being of Young Adults* (<http://www.iom.edu/Activities/Children/ImprovingYoungAdultHealth.aspx>, accessed August 12, 2013), demonstrated how much we still need to learn about them. Indeed, the IOM's working definition of the age range encompassing young adulthood (18–26 years) overlaps with what many of us view as the late stage of adolescence.

In assembling this issue, David and I sought to cover a wide variety of issues pertaining to young adulthood and young adult health; we also asked authors to make sure wherever possible to include information about noncollege youth, because—for us—young adult health and college health are not synonymous. Broad overview articles include young adulthood as a distinct life stage; preventive services for young adults; the Affordable Care Act and its effect on young adults; young adults and social media; and the health of our military veterans. Because mental health and substance abuse significantly affect the health of young adults, we included a number of articles on this topic: epidemiology of mental health disorders, attention-deficit/hyperactivity disorder (ADHD) in young adults, prescription drug abuse, and differences in drug and alcohol use between college and noncollege youth. Finally, 3 articles cover young adults with unique needs: the young adult with a chronic health condition, young adults with Asperger syndrome, and young adult survivors of childhood cancer.



David and I discussed that there will likely be a much greater focus on young adults in the coming years. We hope that this issue of AM:STARS will contribute to that focus and will help physicians be better prepared to take care of them.

Alain Joffe, MD, MPH  
*Associate Professor of Pediatrics  
Johns Hopkins Medical Institutions  
Director, Student Health and Wellness Center  
Johns Hopkins University*