Vaccines

FROM THE EDITOR-IN-CHIEF
187 Vaccine Production, Discovery, And Delivery
Alan R. Weil

DATAGRAPHIC
188 Why The Decade Of Vaccines?

INTERVIEW
190 Eliminating Vaccine-Preventable Diseases Around The World
Alan R. Weil

ENTRY POINT
195 The United States’ Piecemeal Approach To Vaccine Policy
Jessica Bylander

VALUE OF VACCINES
199 Return On Investment From Childhood Immunization In Low-And Middle-Income Countries, 2011–20
Sachiko Ozawa, Samantha Clark, Allison Portnoy, Simrun Grewal, Logan Brenzel, and Damian G. Walker

208 PERSPECTIVE When Not All That Counts Can Be Counted: Economic Evaluations And The Value Of Vaccination
Jason L. Schwartz and Adel Mahmoud

212 VIEWPOINT The Social Value Of Vaccination Programs: Beyond Cost-Effectiveness
Jeroen Luyten and Philippe Beutels

ECONOMICS OF VACCINES
219 Vaccine Pipeline Has Grown During The Past Two Decades With More Early-Stage Trials From Small And Medium-Size Companies
Thomas J. Hwang and Aaron S. Kesselheim

227 Current Global Pricing For Human Papillomavirus Vaccines Brings The Greatest Economic Benefits To Rich Countries
Niamh Herlihy, Raymond Hutubessy, and Mark Jit

235 No Shot: US Vaccine Prices And Shortages
David B. Ridley, Xiaoshu Bei, and Eli B. Liebman

SUSTAINABLE FINANCING FOR VACCINES
242 Vaccine Assistance To Low-And Middle-Income Countries Increased To $3.6 Billion In 2014
Annie Haakenstad, Maxwell Birger, Lavanya Singh, Patrick Liu, Stephen Lim, Marie Ng, and Joseph L. Dieleman

250 Gavi’s Transition Policy: Moving From Development Assistance To Domestic Financing Of Immunization Programs
Judith Kallenberg, Wilson Mok, Robert Newman, Aurélia Nguyen, Theresa Ryckman, Helen Saxenian, and Paul Wilson

259 EPIC Studies: Governments Finance, On Average, More Than 50 Percent Of Immunization Expenses, 2010–11
Logan Brenzel, Carl Schütte, Keti Gogudze, Werner Valdez, Jean-Bernard Le Gargasson, and Teresa Guthrie

Continued on page 182
Continued from page 181

266 ANALYSIS & COMMENTARY
Routes Countries Can Take To Achieve Full Ownership Of Immunization Programs
Michael McQuestion, Andrew Carlson, Khongorzul Dari, Devendra Gnawali, Clifford Kamara, Helene Mambu-Ma-Disu, Jonas Mbwanque, Diana Kizza, Dana Silver, and Eka Paatashvili

ENTRY POINT

VACCINE EFFECTIVENESS

309 Strategies To Boost Maternal Immunization To Achieve Further Gains In Improved Maternal And Newborn Health
Mark R. Steedman, Beate Kampmann, Egbert Schillings, Hanan Al Kuwari, and Ara Darzi

317 REPORT FROM THE FIELD
As Oral Vaccines Fall Short In Low-Income Countries, Researchers Look For Solutions
Carina Storrs

ELIMINATING MEASLES & RUBELLA

322 DATAWATCH Slow Progress In Finalizing Measles And Rubella Elimination In The European Region
Robin Biellik, Iria Davidkin, Susanna Esposito, Andrey Lobanov, Mira Kojouharova, Günter Pfaff, José Ignacio Santos, John Simpson, Myriam Ben Mamou, Robb Butler, Sergei Deshevoi, Shahin Huseynov, Dragan Jankovic, and Abigail Shefer

327 ANALYSIS & COMMENTARY
Combining Global Elimination Of Measles And Rubella With Strengthening Of Health Systems In Developing Countries
Jon Kim Andrus, Stephen L. Cochi, Louis Z. Cooper, and Jonathan D. Klein

Continued on page 183

Vaccine mandate: During a news conference in Sacramento, California, on February 4, 2015, California State Sen. Richard Pan, joined by concerned mothers and their children, answered questions about his proposed legislation that would require parents to vaccinate their school-age children. The law was enacted on June 30, 2015.
Continued from page 182

**ATTITUDES TOWARD VACCINATION**

334  Exploring The Impact Of The US Measles Outbreak On Parental Awareness Of And Support For Vaccination  
    Michael A. Cacciatore, Glen Nowak, and Nathaniel J. Evans

341  Publicly Available Online Tool Facilitates Real-Time Monitoring Of Vaccine Conversations And Sentiments  
    Chi Y. Bahk, Melissa Cumming, Louisa Paushter, Lawrence C. Madoff, Angus Thomson, and John S. Brownstein

**CHILDREN’S VACCINATION IN THE UNITED STATES**

348  ANALYSIS & COMMENTARY: A Tale Of Two States: Mississippi, West Virginia, And Exemptions To Compulsory School Vaccination Laws  
    James Colgrove and Abigail Lowin

356  Since The Start Of The Vaccines For Children Program, Uptake Has Increased, And Most Disparities Have Decreased  
    Brendan Walsh, Edel Doherty, and Ciaran O’Neill

**WEB FIRST**

365  DATAWATCH: Variation In Rural Health Information Technology Adoption And Use  
    Dawn M. Heisey-Grove

**NARRATIVE MATTERS**

371  When There’s No Cure: My Brother’s Battle With Drug-Resistant TB  
    Stephanie Aleksanyan

**GRANTWATCH**

375  Efforts To Improve Quality Of Care And Patient Satisfaction  
    Lee L. Prina

**BOOK REVIEWS**

377  Beating Polio  
    Sarah B. Dine

378  ‘Mad American’ At The Helm  
    J. Stephen Morrison

379  BookMarks

**LETTERS**

380  You Are What You Feed Your Gut Microbiome  
    Joseph E. Scherger

380  Residential Care Facilities And Health Care  
    Lynne S. Katzmann

---

**HEALTH POLICY BRIEFS**

Health Policy Briefs provide clear, accessible overviews of timely and important health policy topics. The peer-reviewed briefs explore competing arguments and point out relevant research. Health Policy Briefs are available online and produced by Health Affairs through a grant from the Robert Wood Johnson Foundation. Sign up for free policy briefs at http://www.healthaffairs.org/healthpolicybriefs.

- **Enforcing Mental Health Parity**
  November 9, 2015

- **Bundled Payments For Care Improvement Initiative**
  November 23, 2015

- **Dietary Guidelines For Americans**
  December 14, 2015

- **Transparency In Clinical Research**
  January 14, 2016

---

Narrative Matters: As the incidence of tuberculosis has waned, so has investment in new tests and treatments—and that may prove to be a mistake.