Delivering Health Care in America
A Systems Approach

SIXTH EDITION

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As of this writing, a few weeks after the health insurance exchanges were opened for enrollment on October 1, 2013, millions of Americans across the nation were beginning to get a first-hand experience with the Affordable Care Act (ACA), nicknamed Obamacare. In a country in which people have been divided almost in the middle on their views, there has been no dearth of speculations on both sides ever since the ACA became law. One side has claimed that the ACA is destined to fail, while the other side has reached the grandiose conclusion that, finally, most Americans will have access to affordable, high-quality health care. We think that such prophetic assertions on both sides are premature. The truth perhaps lies somewhere between the two extremes, but it will not be known for at least a year or two.

Some provisions of the ACA went into effect between 2010 and 2012. They included coverage of children and adults under the age of 26 as dependents under their parents’ health insurance plans, elimination of lifetime dollar limits in health plans, increases in annual caps on health care use, inclusion of preventive services with no out-of-pocket expenses, temporary credits to small employers to offset health insurance costs, certain discounts on drugs for Medicare beneficiaries, and a requirement that health plans spend no less than a certain proportion of the premiums on providing medical care. These mandates, mainly imposed on insurers, were implemented without much ado as most consumers benefited from them. The additional costs were, of course, borne by the insurers. Eventually, however, increased business costs are always passed on to the consumers.

The eventual success or failure of the ACA, or of any other health care reform efforts in the future, will hinge on several factors. Some critical unanswered questions are: Will a large number of young and healthy people enroll through the exchanges to prevent an upward spiral in premium costs, sometimes referred to as a “death spiral?” Will the employment-based health insurance system survive, and, if so, to what extent? Will private insurance companies continue to participate in the government exchanges, or will they hand over the reins to the government at some point? Will the number of providers be sufficient to care for a large influx of the newly insured population? Will Americans have at least the same level of access to health care services that the insured now have, or will access deteriorate for everyone? Will a heavily indebted nation be able to afford the rising levels of
spending without causing serious dislocations in the overall economy? Even though there is uncertainty in these areas, this book attempts to inform the readers on these and many other issues based on what is already known and what some of the trends may be pointing to. In most areas, however, we offer known facts so that the readers can apply their critical thinking skills and draw their own conclusions, pro or con.

Reforms under the new law contain several areas aimed at improving the current health care system. The main areas include a reinvigorated emphasis on prevention; incentives for care coordination; incentives for hospitals to improve quality; enhanced quality reporting requirements; federal assistance to improve the primary care infrastructure, although it is quite inadequate; federal support to authorize “generic” (biosimilar) versions of certain biologics; and insurance coverage for low-income citizens and certain vulnerable groups. These reforms have theoretical bases and precedents so that positive outcomes can be expected in the future.

On the flip side, the ACA has created much confusion, uncertainty, and controversy. For employers, even though the mandate to provide health insurance has been delayed until January 2015, complex reporting requirements will increase business costs. Both large and small businesses are juggling with various options in an effort to find optimum solutions. Eventually, many workers will be left with reduced work hours, unaffordable premiums, without family coverage altogether, or complete loss of a job because of how the ACA has been crafted. As an example of the burden many working Americans are likely to face, researchers at the Kaiser Family Foundation estimated that 3.9 million non-working dependents were in families in which the worker had employment-based coverage but the family did not. These family members would be excluded from getting federal tax credits to subsidize their purchase of health insurance through the government-run marketplaces. On another front, literally millions of Americans have experienced cancellation of their existing privately-purchased health insurance because the policies do not comply with ACA mandates. That these covered individuals were satisfied with their insurance is inconsequential as far as ACA compliance is concerned. The same individuals are finding premiums to be unaffordable when they sign up for coverage through the government-run marketplaces. A last-minute announcement by the Obama administration on November 14, 2013 to allow existing insurance policies to continue for another year under certain conditions seems to have done little to assuage the problem.

The US Supreme Court did not help matters when it upheld half of the law, but let states decide whether they wished to expand their Medicaid programs—as initially intended by the ACA—or opt out. About half the states have opted out, which leaves many vulnerable groups in those states in a state of uncertainty if they are not already covered under Medicaid.

Other issues associated with the ACA include the bulk of the previously uninsured people still to be left without health insurance (estimated to be around 25 to 30 million), uncertain health care costs, experimentation with untested care delivery models that could create dislocations in access and cost, and controversies and legal actions still in place even after the Supreme Court’s ruling that was handed down in June 2012. The latter category includes lawsuits brought by Catholic and other religious
groups based on objections to providing contraceptives mandated by the ACA. On December 31, 2013, US Supreme Court justice, Sonia Sotomayor, an Obama appointee, issued a temporary injunction that blocked the Obama administration from enforcing the birth control mandate for certain Catholic groups. Of course, the Obama administration has objected to Sotomayor’s injunction. According to one report, more than 90 legal challenges have been filed around the country, and the ACA could once again be reviewed by the Supreme Court. In addition, the forthcoming November 2014 congressional elections have some Democrats worried because they voted for the now unpopular ACA. They are trying their best to distance themselves from the ACA. No doubt, the ACA faces turbulent times ahead. Hence, confusion and uncertainty are likely to prevail for some time to come.

**New to This Edition**

This *Sixth Edition* has undergone some of the most extensive revisions we have ever undertaken. We have done this while maintaining the book’s basic structure and layout which, for more than 15 years, has served quite well in helping readers both at home and overseas understand the complexities of the US health care delivery system. Some basic elements of US health insurance and delivery are intentionally retained to assist the growing number of foreign students in US colleges and universities, as well as those residing in foreign countries.

The major updates reflect on two main areas: (1) Regardless of its future, the ACA will radically change health care delivery in the United States, for better or for worse. Because of its far-reaching scope, different aspects of the ACA are woven through all 14 chapters (see the Topical Reference Guide to the Affordable Care Act for easy reference). The reader will find a gradual unfolding of this complex and cumbersome law so it can be slowly digested. To aid in this process, every chapter ends with a new feature, “ACA Takeaway,” as an overview of what the reader would have encountered in the chapter. Details of the law are confined to the context and scope of this book. (2) US health care can no longer remain isolated from globalization. An integrative process in certain domains has been underway for some time. Hence, it has become increasingly important to provide global perspectives, which the readers will encounter in several chapters.

As in the past, this edition has been updated throughout with the latest pertinent data, trends, and research findings available at the time the manuscript was prepared. Copious illustrations in the form of examples, facts, figures, tables, and exhibits continue to make the text come alive. Following is a list of the main additions and revisions:

- **Chapter 1:**
  - A basic overview of health care reform and the Affordable Care Act (ACA)
  - Critical global health issues
- **Chapter 2:**
  - Health insurance under the ACA
  - Measurement of *Healthy People 2020* goals
  - Global health indicators
- **Chapter 3:**
  - E-health and its current applications for consumers
  - New expanded section: Era of Health Care Reform
• Chapter 4:
  • The ACA and physician supply
  • Updated information on non-physician providers
• Chapter 5:
  • Clinical decision support systems (CDSS) and their benefits
  • Introduction to health information organizations (HIOs)
  • Introduction to nanomedicine
  • Revisions to HIPAA in conjunction with the HITECH law
  • Update on remote monitoring technology
  • New section on biologics and their regulation by the FDA
  • The ACA as it applies to medical devices and biologics
• Chapter 6:
  • Adjusted community rating for insurance underwriting under the ACA
  • New exhibit to spotlight differences between the two main types of high-deductible/savings plans
  • New section, “Private Health Insurance Under the ACA,” covering details of the many changes that private insurance plans and employers must comply with
  • Changes in Medicare, including changes in reimbursement, required by the ACA
  • Recent trends affecting the HI and SMI trust funds
  • Ambiguity over Medicaid that creates two different programs and ironies created by the ACA
  • Refined DRGs (MS-DRGs) for reimbursement of acute-care inpatient hospital services, and ACA stipulations for hospital reimbursement
  • Updated current directions and issues in financing
• Chapter 7:
  • Primary Care Assessment Tool
  • Medical home measurement
  • Primary care providers in other countries
  • Current developments in home health care
  • Current developments in community health centers
  • Current developments in alternative medicine
  • Global trends in health care providers
• Chapter 8:
  • New section on hospital utilization and factors that affect hospital employment
  • New section on hospital costs
• Chapter 9:
  • New section on pharmaceutical management as a cost-control mechanism in managed care
  • Introduction to triple-option plans
  • New section on managed care and health insurance exchanges under the ACA
  • Expanded section on accountable care organizations
  • New section on payer–provider integration
• Chapter 10:
  • Limited federal financial incentives to states for additional home- and community-based long-term care services under the ACA
  • New model of continuing care at home
• Chapter 11:
  • The uninsured under the ACA
  • Updated information on the homeless
  • Updated information on mental health
  • Updated information on the chronically ill
  • New section on the migrant populations
As in the past, we invite comments from our readers. Communications can be directed to either or both authors:
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We appreciate the work of Xiaoyu Nie in providing assistance in the preparation of selected chapters of this book.

• Chapter 12:
  • Current issues in health care cost, access, and quality  
  • CMS program related to quality  
  • AHRQ quality report card/indicators  
  • NCQA and quality measures

• Chapter 13:
  • Current critical policy issues  
  • Future health policy issues/challenges in both the US and abroad

• Chapter 14:
  • Expansion of the framework: Forces of Future Change  
  • Revised section on the future of health care reform  
  • Perspectives on universal coverage and access vs. single-payer system

As in the previous editions, our aim is to continue to meet the needs of both graduate and undergraduate students. We have attempted to make each chapter complete without making it overwhelming for beginners. Instructors, of course, will choose the sections they decide are most appropriate for their courses.
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List of Abbreviations/Acronyms

A
AALL—American Association of Labor Legislation
AAMC—Association of American Medical Colleges
AA/PIs—Asian American and Pacific Islanders
AAs—Asian Americans
ACA—Affordable Care Act
ACNM—American College of Nurse-Midwives
ACO—accountable care organization
ACPE—American Council on Pharmaceutical Education
ACS—American College of Surgeons
ADA—American Dental Association
ADA—Americans with Disabilities Act
ADC—adult day care
ADLs—activities of daily living
ADN—associate’s degree nurse
AFC—adult foster care
AFDC—Aid to Families with Dependent Children
AHA—American Hospital Association
AHRQ—Agency for Healthcare Research and Quality
AIANs—American Indians and Alaska Natives
AIDS—acquired immune deficiency syndrome
ALF—assisted living facility
ALOS—average length of stay
AMA—American Medical Association
AMDA—American Medical Directors Association
amfAR—Foundation for AIDS Research
ANA—American Nurses Association
APCs—ambulatory payment classifications
APN—advanced practice nurse
ARRA—American Recovery and Reinvestment Act
ASPR—Assistant Secretary for Preparedness

B
BBA—Balanced Budget Act of 1997
BPCI—bundled payments for care improvement
BPHC—Bureau of Primary Health Care
BSN—baccalaureate degree nurse
BWC—Biological Weapons Convention

C
CAH—critical access hospital
CAM—complementary and alternative medicine
CAT—computerized axial tomography
CBO—Congressional Budget Office
CCAH—continuing care at home
CCIP—Chronic Care Improvement Program
CCRC—continuing care retirement community
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CDSS</td>
<td>Clinical decision support systems</td>
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<tr>
<td>CEO</td>
<td>Chief executive officer</td>
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<tr>
<td>CEPH</td>
<td>Council on Education for Public Health</td>
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<tr>
<td>CF</td>
<td>Conversion factor</td>
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<tr>
<td>CHAMPVA</td>
<td>Civilian Health and Medical Program of the Department of Veterans Affairs</td>
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<tr>
<td>CHC</td>
<td>Community health center</td>
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<tr>
<td>CHIP</td>
<td>Children’s Health Insurance Program</td>
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<tr>
<td>CIA</td>
<td>Central Intelligence Agency</td>
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<tr>
<td>CMGs</td>
<td>Case-mix groups</td>
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<tr>
<td>C/MHCs</td>
<td>Community and Migrant Health Centers</td>
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<tr>
<td>CMS</td>
<td>Centers for Medicare &amp; Medicaid Services</td>
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<tr>
<td>CNA</td>
<td>Certified nursing assistant</td>
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<tr>
<td>CNM</td>
<td>Certified nurse-midwife</td>
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<tr>
<td>CNSs</td>
<td>Clinical nurse specialists</td>
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<tr>
<td>COBRA</td>
<td>Consolidated Omnibus Budget Reconciliation Act of 1985</td>
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<tr>
<td>COGME</td>
<td>Council on Graduate Medical Education</td>
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<tr>
<td>CON</td>
<td>Certificate-of-need</td>
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<tr>
<td>COPC</td>
<td>Community-oriented primary care</td>
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<tr>
<td>COPD</td>
<td>Chronic obstructive pulmonary disease</td>
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<tr>
<td>COTA</td>
<td>Certified occupational therapy assistant</td>
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<tr>
<td>COTH</td>
<td>Council of Teaching Hospitals and Health Systems</td>
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<tr>
<td>CPI</td>
<td>Consumer price index</td>
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<tr>
<td>CPOE</td>
<td>Computerized physician order entry</td>
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<tr>
<td>CPT</td>
<td>Current procedural terminology</td>
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<tr>
<td>CQI</td>
<td>Continuous quality improvement</td>
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<tr>
<td>CRNA</td>
<td>Certified registered nurse anesthetist</td>
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<tr>
<td>CT</td>
<td>Computed tomography</td>
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<td>CVA</td>
<td>Cardiovascular accident</td>
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<tr>
<td>D</td>
<td>Doctor of chiropractic</td>
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<td>DD</td>
<td>Developmentally disabled</td>
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<tr>
<td>DDS</td>
<td>Doctor of Dental Surgery</td>
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<tr>
<td>DHHS</td>
<td>Department of Health and Human Services</td>
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<td>DHS</td>
<td>Department of Homeland Security</td>
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<td>DMD</td>
<td>Doctor of dental medicine</td>
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<td>DME</td>
<td>Durable medical equipment</td>
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<td>DoD</td>
<td>Department of Defense</td>
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<tr>
<td>DO</td>
<td>Doctor of osteopathy</td>
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<tr>
<td>DPM</td>
<td>Doctor of podiatric medicine</td>
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<tr>
<td>DRA</td>
<td>Deficit Reduction Act of 2005</td>
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<td>DRGs</td>
<td>Diagnostic-related groups</td>
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<tr>
<td>DSM-IV</td>
<td>Diagnostic and Statistical Manual of Mental Disorders</td>
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<tr>
<td>DTP</td>
<td>Diphtheria-tetanus-pertussis</td>
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<tr>
<td>E</td>
<td>Evidence-based medicine</td>
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<td>EBRI</td>
<td>Employee Benefit Research Institute</td>
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<tr>
<td>ECG</td>
<td>Electrocardiogram</td>
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<td>ECU</td>
<td>Extended care unit</td>
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<tr>
<td>ED</td>
<td>Emergency department</td>
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<tr>
<td>EHRs</td>
<td>Electronic health records</td>
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<tr>
<td>EMT</td>
<td>Emergency medical technician</td>
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<tr>
<td>EMTALA</td>
<td>Emergency Medical Treatment and Labor Act</td>
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<td>ENP</td>
<td>Elderly nutrition program</td>
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<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>EPO</td>
<td>Exclusive provider organization</td>
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<tr>
<td>ERISA</td>
<td>Employee Retirement Income Security Act</td>
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<td>ESRD</td>
<td>End-stage renal disease</td>
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<tr>
<td>F</td>
<td>Federal Bureau of Investigation</td>
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<tr>
<td>FD&amp;C</td>
<td>Federal Food, Drug, and Cosmetic Act</td>
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<tr>
<td>FDA</td>
<td>Food and Drug Administration</td>
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<tr>
<td>FMAP</td>
<td>Federal Medical Assistance Percentage</td>
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</table>
FPL—federal poverty level
FQHC—Federally Qualified Health Center
FTE—full-time equivalent
FY—fiscal year

G
GAO—General Accounting Office
GATS—General Agreement on Trade in Services
GDP—gross domestic product
GP—general practitioner

H
HAART—highly active antiretroviral therapy
HCBS—home- and community-based services
HCBW—home- and community-based waiver
HCH—Health Care for the Homeless
HDHP—high-deductible health plan
HEDIS—Health Plan Employer Data and Information Set
HHRG—home health resource group
HI—hospital insurance
HIAA—Health Insurance Association of America
Hib—Haemophilus influenzae B
HIO—health information organization
HIPAA—Health Insurance Portability and Accountability Act
HIT—health information technology
HITECH—Health Information Technology for Economic and Clinical Health Act
HIV—human immunodeficiency virus
HMO—health maintenance organization
HMO Act—Health Maintenance Organization Act
HPSAs—health professional shortage areas
HPV—human papillomavirus
HRQL—health-related quality of life
HRSA—Health Resources and Services Administration
HSA—health savings account
HSAs—health system agencies
HTA—health technology assessment
HUD—Department of Housing and Urban Development

I
IADL—instrumental activities of daily living
ICD-9—International Classification of Diseases, version 9
ICF—intermediate care facility
ICF/IID—intermediate care facilities for individuals with intellectual disabilities
ICF/MR—intermediate care facilities for mentally retarded
ID—intellectual disability
IDD—intellectually/developmentally disabled
IDEA—Individuals with Disabilities Education Act
IDS—integrated delivery systems
IDU—injection drug use
IHR—International Health Regulations
IHS—Indian Health Service
IMGs—international medical graduates
INS—Immigration and Naturalization Service
IOM—Institute of Medicine
IPA—independent practice association
IPAB—Independent Payment Advisory Board
IRB—Institutional Review Board
IRF—inpatient rehabilitation facility
IRMAA—income related monthly adjustment amount
IRS—Internal Revenue Service
IS—information systems
IT—information technology
IV—intravenous
List of Abbreviations/Acronyms

L
LPN—licensed practical nurse
LTC—long-term care
LTCH—long-term care hospital
LVN—licensed vocational nurse

M
MA—Medicare Advantage
MA-PD—Medicare Advantage Prescription Drug Plan
MA-SNP—Medicare Advantage Special Needs Program
MBA—master of business administration
MCOs—managed care organizations
MD—doctor of medicine
MDS—minimum data set
MedPAC—Medicare Payment Advisory Commission
MEPS—Medical Expenditure Panel Survey
MFS—Medicare Fee Schedule
MHA—master of health administration
MHS—multihospital system
MHSA—master of health services administration
MLP—midlevel provider
MLR—medical loss ratio
MMA—Medicare Prescription Drug, Improvement, and Modernization Act
MMR—measles-mumps-rubella vaccine
MPA—master of public administration/affairs
MPFS—Medicare Physician Fee Schedule
MPH—master of public health
MR/DD—mentally retarded, developmentally disabled
MRHFP—Medicare Rural Hospital Flexibility Program
MRI—magnetic resonance imaging
MSA—metropolitan statistical area
MS-DRGs—Medicare severity diagnosis-related groups
MSO—management services organization
MUAs—medically underserved areas

N
NAB—National Association of Boards of Examiners of Long-Term Care Administrators
NADSA—National Adult Day Services Association
NAPBC—National Action Plan on Breast Cancer
NCCAM—National Center for Complementary and Alternative Medicine
NCHS—National Center for Health Statistics
NCQA—National Committee for Quality Assurance
NF—nursing facility
NGC—National Guideline Clearinghouse
NHC—neighborhood health center
NHE—national health expenditures
NHI—national health insurance
NHS—British National Health Service
NHSC—National Health Service Corps
NIAAA—National Institute of Alcohol Abuse and Alcoholism
NICE—National Institute for Health and Clinical Excellence
NIDA—National Institute on Drug Abuse
NIH—National Institutes of Health
NIMH—National Institute of Mental Health
NP—nurse practitioner
NPC—nonphysician clinician
NPP—nonphysician practitioner
NRA—Nurse Reinvestment Act of 2002
NRP—National Response Plan

O
OAM—Office of Alternative Medicine
OBRA—Omnibus Budget Reconciliation Act
OD—doctor of optometry
List of Abbreviations/Acronyms

OI—opportunistic infections
OMB—Office of Management and Budget
OPPS—Outpatient Prospective Payment System
OSHA—Occupational Safety and Health Administration
OT—occupational therapist
OWH—Office on Women’s Health

P
P4P—pay-for-performance
PA—physician assistant
PACE—Program of All-Inclusive Care for the Elderly
PAHP—Pandemic and All-Hazards Preparedness Act
PASRR—Preadmission Screening and Resident Review
PBMs—pharmacy benefits management companies
PCCM—primary care case management
PCGs—primary care groups
PCIP—Pre-Existing Condition Insurance Plan
PCM—primary care manager
PCP—primary care physician
PDAs—personal digital assistants
PDP—stand-alone prescription drug plan
PERS—personal emergency response systems
PET—positron emission tomography
PFFS—private fee-for-service
PharmD—doctor of pharmacy
PhD—doctor of philosophy
PHI—personal health information
PHO—physician–hospital organization
PhRMA—Pharmaceutical Research and Manufacturers of America
PHS—public health service
PMPM—payment per member per month
POS—point-of-service plan
PPD—per-patient day rate
PPM—physician practice management

PPOs—preferred provider organizations
PPS—prospective payment system
PROs—peer review organizations
PSO—provider-sponsored organization
PSROs—professional standards review organizations
PsyD—doctor of psychology
PTA—physical therapy assistant
PTCA—percutaneous transluminal coronary angioplasty
PTs—physical therapists

Q
QALY—quality-adjusted life year
QI—quality indicator
QIOs—quality improvement organizations

R
R&D—research and development
RAI—resident assessment instrument
RBRVS—resource-based relative value scales
RHIO—Regional Health Information Organization
RICs—rehabilitation impairment categories
RN—registered nurse
RUG-III—Resource Utilization Groups, version 3
RUGs—resource utilization groups
RVUs—relative value units
RWJF—Robert Wood Johnson Foundation

S
SAMHSA—Substance Abuse and Mental Health Services Administration
SARS—severe acute respiratory syndrome
SAV—small area variations
SES—socioeconomic status
SHI—socialized health insurance
SHOP—small business health options program
SMI—supplementary medical insurance
SNF—skilled nursing facility
SPECT—single-photon emission computed tomography
SSI—Supplemental Security Income
STDs—sexually transmitted diseases

T
TAH—total artificial heart
TANF—Temporary Assistance for Needy Families
TCU—transitional care unit
TEFRA—Tax Equity and Fiscal Responsibility Act
TFL—TriCare for Life
TPA—third-party administrator
TQM—total quality management

U
UCR—usual, customary, and reasonable
UR—utilization review

V
VA—Department of Veterans Affairs
VBP—value-based purchasing
VHA—Veterans Health Administration
VISN—Veterans Integrated Service Network
VNA—Visiting Nurses Association

W
WHO—World Health Organization
WIC—Special Supplemental Nutrition Program for Women, Infants, and Children
Topical Reference Guide to the Affordable Care Act (ACA)

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    General overview of the ACA
Chapter 2: Disease prevention under health care reform
    Social justice orientation of the ACA and its limitations
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    State precedents of the ACA
    Overview of the ACA’s enactment in 2010
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    Integration of pharmacists into the new team environment
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    Mandated minimum medical loss ratios
    Mandated Essential Health Benefits
    Exemptions from individual shared responsibility
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    Health insurance marketplaces (exchanges), SHOPs, and qualified health plans
    Four plan choices
    Premium subsidies
Employer mandate and penalties (delayed until 2015)
Medicare financing and benefits under the ACA
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Value-based purchasing and its effects on provider reimbursement
Likely cost and coverage scenarios

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Chapter 13: Roles of the DHHS and the IRS
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Chapter 14: The ACA’s standing in the context of forces of future change
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