Delivering Health Care in America

A SYSTEMS APPROACH EIGHTH EDITION

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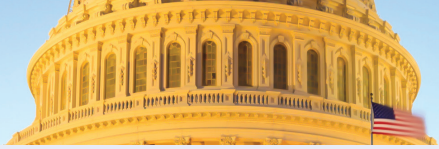

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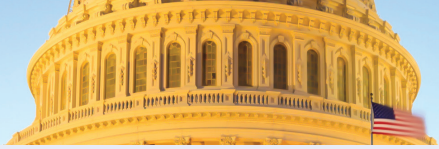

Preface

With this eighth edition of *Delivering Health Care in America: A Systems Approach*, we celebrate 23 years of serving instructors, students, policymakers, and others, both at home and overseas, with up-to-date information on the dynamic U.S. health care delivery system. Every effort has been made to update the tables and figures in this edition and to keep the readers abreast of ongoing changes in the financing and delivery of health care.

The major event in 2020–2021 that gripped the entire world—with the United States being no exception—was the pandemic caused by the novel coronavirus that caused the disease named COVID-19. This pandemic and its effects on health care are discussed in several chapters of this text. Of course, the long-term effects of this disease, of the variants and mutations of the virus, and of the massive vaccinations against the disease on people's health and longevity are as yet unknown. Also unspecified at this time are what actions the global community can take to prevent such catastrophes in the future. Hence, this topic will remain of interest to public health experts for some time to come.

Currently, both the political and cultural environments in the United States are in a state of flux; some observers even describe it as a pivotal moment. It is anyone's guess whether the breakdown of law and order, with its ensuing undesirable consequences, and the assault on the nation's long-held anthro-cultural values are merely passing phenomena or have become truly embedded in the nation's social fabric. There can be no doubt that such generational shifts will have consequences for the health and well-being of the U.S. population. For instance, riots, looting, and violence take resources away from the nation's ability to address the populace's critical needs related to physical, psychological, economic, and social health and well-being.

In the United States, it appears that we have entered an era of massive government spending of tax dollars with relatively little objective examination of the returns that such spending might bring. Hence, in 2021 and beyond, we can expect a significant overhaul of the U.S. health care delivery system. Previously, Democratic politicians had campaigned on slogans such as "Medicare for all," a euphemism for a single-payer health care system. Given the lack of specifics offered about this plan, one can only speculate about whether such a system will materialize. Regardless of which direction the U.S. health care system ultimately takes, the critical issues related to it—people's ability to access health care services when needed, the overall cost of health care and its affordability for individuals, and improvement of quality—are likely to remain. The vital test for the success of any future system-wide initiatives in health care will be the value produced for the money spent.

New to This Edition

This edition continues to reference some of the main features of the Affordable Care Act (ACA) wherever it is important to provide contextual discussions from historical and policy perspectives. Several chapters cover

the main provisions of the 21st Century Cures Act, which, after a long delay, was finally passed by Congress and signed into law by President Barack Obama in December 2016.

As in the past, this text 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

- New and emerging characteristics of the U.S. health care system, such as "accountable care," "integrated delivery," and "pay for value"
- Updated material on new trends in health care delivery, including a new paradigm shift from the hospital- and professional-centric perspective to community- and consumer-centric transformation

Chapter 2

- New concepts related to *Healthy People 2030*
- The concept of "One Health" and its relation to health care delivery
- The importance of health promotion and behavior change
- The Global Health Security (GHS) Index
- Discussion of health security and COVID-19

Chapter 3

- Update on the patchy legacy of the ACA
- Updated status of health care reform in the United States

Chapter 4

- Updated trends in the health care workforce
- The concept of the health care team and its importance in extending access and enhancing quality
- Strategies to address health care professional shortages in developing countries and underserved communities

Chapter 5

- Medical technology and the role of precision medicine
- The role of artificial intelligence in medicine
- The role and impact of government policy on the adoption of electronic health records
- Updates on the effects of electronic health records on health care delivery
- Hospital participation in health information organizations
- Status of e-visits, especially in the context of the COVID-19 pandemic
- Reasons behind the revisions of Stark Law regulations
- The Right to Try Act of 2018
- Updated coverage of drugs obtained from overseas
- Drug shortages in the United States and reasons behind the shortages
- Updated material on Certificate of Need regulations
- Use of value analysis in medical technology assessment

Chapter 6

- Effects of the ACA on insurance, access, and cost
- Private insurance under President Donald Trump's health reform

- Private insurance and the COVID-19 pandemic
- A new table (Table 6-2) on trends in health care plan premium costs for employers and employees
- The growth of Medicare Advantage plans and cost efficiencies of these plans
- Status of Medicare trust funds and the likely effects of the COVID-19 pandemic on them
- Updates on access through Medicaid expansion under the ACA
- Role of the VA MISSION Act in expanding health care access
- Quality criteria under the Medicare Shared Savings Program
- The status of value-based purchasing programs
- Payment for outpatient rehabilitation under the Healthcare Common Procedure Coding System (HCPCS)
- The new patient-driven payment model (PDPM) for skilled nursing facilities
- Payments to inpatient rehabilitation facilities
- The new patient-driven groupings model (PDGM) for home health care
- Major contributors to the growth in health care expenditures
- The effects of COVID-19 on health care financing

Chapter 7

- New roles of primary care in an integrated care system
- Introduction of the Primary Care Assessment Tools (PCAT) as a way to measure primary care performance at the patient, provider, facility, and system levels
- The role of primary care in pandemics
- Best practices examples of primary care around the world

Chapter 8

- Hospital demand, employment, expenditures, and profitability
- International cost comparisons for hospitals, based on purchasing power parity
- Quality benefits noted in physician-owned specialty hospitals

Chapter 9

- Access to mental health services under managed care
- Provider-sponsored health plans and their impacts on quality, effectiveness, and cost
- Effects of clinical care delivery in integrated delivery systems and the role of care coordination
- Impact on cost savings under the shared savings arrangements in accountable care organizations
- Coordinated care organizations

Chapter 10

- New information on the correlations between age, gender, multimorbidity, and functional limitations
- New table on comparative utilization of nursing homes versus assisted living facilities

Chapter 11

- Updated information on vulnerable subpopulations
- Updated material on disparities in health, health care, and quality across subpopulations distinguished by factors such as race/ethnicity, insurance coverage, and socioeconomic status
- Examples of strategies to address disparities across subpopulations
- Discussion of racism in health care

Chapter 12

- Updated information on state and professional measures of quality
- Accountable care organizations and their impacts on access, quality, and value
- The relationship between technology and access to health care

Chapter 13

- Critique of new health policy initiatives
- Updates on new health care reform initiatives (domestic, rural health transformation)
- A new section on World Health Organization (WHO) initiatives on health
- A new section on health care reforms around the world, including current health care reforms in selected countries

Chapter 14

- Discussion of the various options for health care reform against the backdrop of a single-payer system and nebulous "Medicare for all" proposals
- Implications for the future growth of telemedicine
- The Campaign for Action to improve nursing practice
- Proposals to address the shortage in primary care
- The four pillars of primary care that make primary care a rewarding career choice
- Innovations to improve training in geriatrics
- Failures in international cooperation and the future role of an agency such as WHO in the context of the COVID-19 pandemic
- The role of artificial intelligence in precision medicine
- Controversies surrounding evidence-based medicine and comparative effectiveness research, and what the future holds

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, can choose the sections they decide are most appropriate for their courses.

As in the past, we invite comments from our readers. Communications can be directed to either or both authors:

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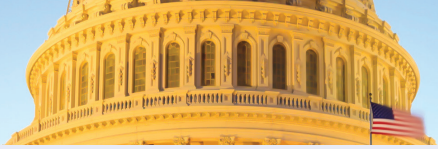
We appreciate the work of Catherine Dong in providing assistance with the preparation of selected chapters of this text.



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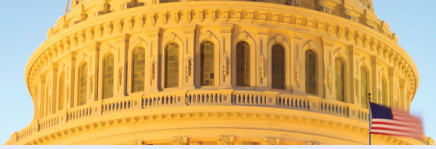

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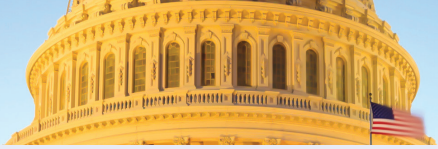

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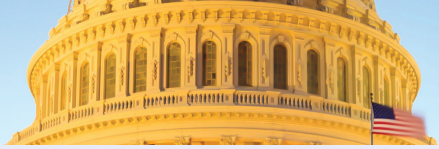

List of Abbreviations/Acronyms

A

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

B

BBA—Balanced Budget Act
BPCI—bundled payments for care improvement
BSN—baccalaureate degree in nursing
BWC—Biological and Toxin Weapons Convention

C

CAH—critical access hospital
CAM—complementary and alternative medicine
CBO—Congressional Budget Office
CCAH—continuing care at home
CCRC—continuing care retirement center/community
CDC—Centers for Disease Control and Prevention
CDSS—clinical decision support system
CEO—chief executive officer
CEPH—Council on Education for Public Health
CER—comparative effectiveness research
CF—conversion factor
CHAMPVA—Civilian Health and Medical Program of the Department of Veterans Affairs
CHC—community health center
CHIP—Children's Health Insurance Program
CMGs—case-mix groups
C/MHCs—community and migrant health centers
CMS—Centers for Medicare and Medicaid Services
CNA—certified nursing assistant

CNM—certified nurse-midwife
CNS—clinical nurse specialist
COBRA—Consolidated Omnibus Budget Reconciliation Act
CON—certificate of need
COPC—community-oriented primary care
COTA—certified occupational therapy assistant
COTH—Council of Teaching Hospitals and Health Systems
CPI—consumer price index
CPOE—computerized provider order entry
CPT—Current Procedural Terminology
CQI—continuous quality improvement
CRNA—certified registered nurse anesthetist
CT—computed tomography

D

DC—Doctor of Chiropractic
DD—developmental disability
DDS—Doctor of Dental Surgery
DGME—Direct Graduate Medical Education
DHHS—U.S. Department of Health and Human Services
DHS—U.S. Department of Homeland Security
DMD—Doctor of Dental Medicine
DME—durable medical equipment
DO—Doctor of Osteopathic Medicine
DoD—U.S. Department of Defense
DPM—Doctor of Podiatric Medicine
DRA—Deficit Reduction Act
DRGs—diagnosis-related groups
DSM-5—*Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*
DTP—diphtheria/tetanus/pertussis (vaccine)

E

EBM—evidence-based medicine
EBRI—Employee Benefit Research Institute
ECG—electrocardiogram
ECU—extended care unit
ED—emergency department
EHRs—electronic health records
EMT—emergency medical technician
EMTALA—Emergency Medical Treatment and Active Labor Act
ENP—Elderly Nutrition Program
ERISA—Employee Retirement Income Security Act
ESRD—end-stage renal disease

F

FD&C Act—Federal Food, Drug, and Cosmetic Act
FDA—Food and Drug Administration
FMAP—Federal Medical Assistance Percentage
FPL—federal poverty level
FTE—full-time equivalent
FY—fiscal year

G

GAO—Government Accountability Office
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
HCPCS—Healthcare Common Procedures Coding System
HDHP—high-deductible health plan
HDHP/SO—high-deductible health plan with a savings option
HEDIS—Healthcare Effectiveness Data and Information Set
HHRG—home health resource group
HI—hospital insurance

HIAA—Health Insurance Association of America
Hib—*Haemophilus influenzae* serotype 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
HRA—health reimbursement arrangement
HRQL—health-related quality of life
HRSA—Health Resources and Services Administration
HSA—health savings account
HTA—health technology assessment
HUD—U.S. Department of Housing and Urban Development

I

IADLs—instrumental activities of daily living
ICF—intermediate care facility
ICF/IID—intermediate care facilities for individuals with intellectual disabilities
ICF/MR—intermediate care facilities for the mentally retarded
ID—intellectual disability
IDD—intellectual/developmental disability
IDEA—Individuals with Disabilities Education Act
IDS—integrated delivery systems
IDU—injection drug use
IHR—International Health Regulations
IHS—Indian Health Service
IME—Indirect Medical Education
IMGs—international medical graduates
IOM—Institute of Medicine
IPA—independent practice association
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

L

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

M

MA—Medicare Advantage
MACPAC—Medicaid and CHIP Payment and Access Commission
MACRA—Medicare Access and CHIP Reauthorization Act
MA-PD—Medicare Advantage Prescription Drug Plan
MA-SNP—Medicare Advantage Special Needs Plan
MBA—Master of Business Administration
MCOs—managed care organizations
MD—Doctor of Medicine
MDS—Minimum Data Set
MedPAC—Medicare Payment Advisory Com- mission
MEPS—Medical Expenditure Panel Survey
MERS—Middle East respiratory syndrome
MFP—Money Follows the Person
MHA—Master of Health Administration
MHS—multihospital system
MHSA—Master of Health Services Administration
MIPS—Merit-based Incentive Payment System
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
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
MSSP—Medicare Shared Savings Program
MUAs—medically underserved areas

N

NAB—National Association of Boards of Examiners of Long-Term Care Administrators
NAPBC—National Action Plan on Breast Cancer
NCCAM—National Center for Complementary and Alternative Medicine
NCCIH—National Center for Complementary and Integrative Health
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—national health system
NHS—U.K. National Health Service
NHSC—National Health Service Corps
NICE—National Institute for Health and Clinical Excellence
NIH—National Institutes of Health
NIMH—National Institute of Mental Health
NP—nurse practitioner
NPP—nonphysician practitioner
NRP— National Response Plan

O

OAM—Office of Alternative Medicine
OBRA—Omnibus Budget Reconciliation Act
OD—Doctor of Optometry
OI—opportunistic infection
OPPS—Outpatient Prospective Payment System
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
PAHPA—Pandemic and All-Hazards Preparedness Act
PASRR—Preadmission Screening and Resident Review
PBMs—pharmacy benefits managers
PCCM—primary care case management
PCMH—patient-centered medical home
PCP—primary care physician
PDP—stand-alone prescription drug plan
PERS—personal emergency response system
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
PMPM—per member per month
POH—physician-owned hospital
POS—point-of-service (plan)
PPD—per-patient day (rate)
PPM—physician practice management
PPO—preferred provider organization
PPS—prospective payment system
PRO—peer review organization
PSHP—provider-sponsored health plan
PSO—provider-sponsored organization

PSRO—professional standards review organization
PsyD—Doctor of Psychology
PTA—physical therapy assistant
PTCA—percutaneous transluminal coronary angioplasty
PT—physical therapist

Q

QALY—quality-adjusted life year
QI—quality indicator
QIO—quality improvement organization

R

R&D—research and development
RBRVS—resource-based relative value scales
RN—registered nurse
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
SGR—sustainable growth rate
SHI—socialized health insurance
SMI—supplementary medical insurance
SNF—skilled nursing facility
SPECT—single-photon emission computed tomography
SSI—Supplemental Security Income
STD—sexually transmitted disease

T

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

U

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

V

VA—U.S. Department of Veterans Affairs
VBP—Value-Based Purchasing/Payment
VHA—Veterans Health Administration
VISN—Veterans Integrated Service Network

W

WHO—World Health Organization
WIC—Special Supplemental Nutrition Program for Women, Infants, and Children