

Comprehensive Care Coordination for Chronically Ill Adults

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Editors

Cheryl Schraeder, RN, PhD, FAAN

*Director of Policy and Practice Initiatives
Institute for Healthcare Innovation
UIC College of Nursing
Chicago, IL, USA*

Paul Shelton, EdD

*Senior Research Specialist
Institute for Healthcare Innovation
UIC College of Nursing
Chicago, IL, USA*

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9600 Garsington Road, Oxford, OX4 2DQ, UK

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Editors and Contributors

Editors

Cheryl Schraeder, RN, PhD, FAAN

Clinical Associate Professor
College of Nursing
University of Illinois at Chicago
Chicago, IL
USA

Paul Shelton, EdD

College of Nursing
University of Illinois at Chicago
Chicago, IL
USA

Contributors

Kyle R. Allen, DO, AGFS

Professor of Internal and Family Medicine
Northeastern Ohio Universities Colleges
of Medicine & Pharmacy
Medical Director, Post Acute & Senior
Services
Chief, Division of Geriatric Medicine
Summa Health System
Akron, OH
USA

Robert Berenson, MD

Institute Fellow
The Urban Institute
Washington, DC
USA

Carrie Berger, BA, MSW Candidate

College of Nursing
University of Illinois at Chicago
Chicago, IL
USA

Robert M. Atkins, MD, MPH

Senior Medical Director-Integration
Aetna-Schaller Anderson
Indianapolis, IN
USA

**Michael K. Berkes, BS, MSW
Candidate**

Visiting Research Specialist
College of Nursing
University of Illinois at Chicago
Chicago, IL
USA

Emma Barker, MSW

Associate Program Officer
New York Academy of Medicine
New York, NY
USA

Chad Boulton, MD, MPH, MBA

Professor and Director
The Lipitz Center for Integrated Health
Care
Department of Health Policy and
Management
Bloomberg School of Public Health
Johns Hopkins University
Baltimore, MD
USA

Randall S. Brown, PhD

Mathematica Policy Research
Princeton, NJ
USA

Cherie P. Brunner, MD

Associate Professor
Division of Geriatric Medicine
University of Utah
Chief of Geriatrics
Intermountain Healthcare
Salt Lake City, UT
USA

Eric A. Coleman, MD, MPH

Professor of Medicine
Division of Health Care Policy and
Research
Department of Medicine
University of Colorado
Denver, CO
USA

Beverly J. Court, MHA, PhD

Research Manager
Washington State Medicaid Purchasing
Administration
Olympia, WA
USA

Meg Cristofalo, MSW, MPA

University of Washington
Seattle, WA
USA

L. Gail Dobell, PhD

Measurement and Evaluation Specialist
Residents First - Advancing Quality in
Ontario Long-Term Care Homes
Ontario Health Quality Council
Toronto, ON
Canada

David A. Dorr, MD, MS

Associate Professor
Primary: Department of Medical
Informatics & Clinical Epidemiology
Joint: Department of Internal Medicine &
Geriatrics
Oregon Health & Science University
Portland, OR
USA

Mark E. Douglas, JD, MSN, RN

Director of Clinical Project Coordination
Aetna-Schaller Anderson
Indianapolis, IN
USA

Linda Fahey, RN, MSN

Decatur Memorial Hospital
Decatur, IL
USA

**Sandee Ferguson, RN, BBA,
MS, Fellow**

Manager, Long Term Care Access &
Integration
Community Long Term Care Division
Ohio Department of Aging
Columbus, Ohio
USA

**Angela M. Gerolamo, PhD,
APRN, BC**

Nurse Researcher
Mathematica Policy Research
Princeton, NJ
USA

Arkadipta Ghosh, PhD

Researcher
Mathematica Policy Research
Princeton, NJ
USA

Robyn L. Golden, LCSW

Director of Older Adult Programs
Rush University Medical Center
Chicago, IL
USA

Lee Greer, MD, MBA

Chief Quality and Safety Officer
North Mississippi Health Services
Tupelo, MS
USA

Carol Groves, RN, MPA

Senior Director of Continuing Care
Kaiser Foundation Health Plan of the
Mid-Atlantic States, Inc.
Rockville, MD
USA

Beth A. Hale, PhD, RN

Director of Admissions
Hospice of the Valley
Phoenix, AZ
USA

Allison Hamblin, MSPH

Center for Health Care Strategies
Hamilton, NJ
USA

Susan Hazelett, RN, MS

Manager HSREI
Summa Health System
Akron, OH
USA

Lynda Hedstrom, MSN, APRN, NP-C

Senior Director Professional Practice and
Clinical Training

UnitedHealthcare Medicare and
Retirement

Mike Herndon, DO

Medical Director
Health Care Management
Oklahoma Health Care Authority
Oklahoma City, OK
USA

Ida Hess, MSN, FNP-BC

Visiting Nurse Practice Specialist
Institute for Healthcare Innovation
College of Nursing
University of Illinois at Chicago
Mahomet, IL
USA

Carolyn Holder, MSN, RN, GCNS-BC

Manager, Transitional Care
Post Acute and Senior Services
Summa Health System
Akron, OH
USA
Adjunct Faculty, College of Nursing
Kent State University
Kent, OH
USA

Julianne R. Howell, PhD

Independent Technical Consultant
Centers for Medicare & Medicaid Services
Baltimore, MD
USA

Krista L. Jones, DNP, MSN, ACHN, RN

Clinical Instructor
College of Nursing
University of Illinois
Urbana, IL
USA

Molly M. King, BA

Research Assistant II
Oregon Health & Science University
Portland, OR
USA

Antoinette Krupski, PhD

Associate Director, CHAMMP
Research Associate Professor
Department of Psychiatry and Behavioral
Sciences
University of Washington at Harborview
Medical Center
Seattle, WA
USA

Daniel S. Lessler, MD, MHA

Professor of Medicine
School of Medicine, University of
Washington
Associate Medical Director, Harborview
Medical Center
Seattle, WA
USA

David Mancuso, PhD

Senior Research Supervisor
Washington State Department of Social
and Health Services
Research and Data Analysis Division
Olympia, Washington
USA

Eran D. Metzger, MD

Assistant Professor of Psychiatry
Harvard Medical School
Associate Director of Psychiatry at
Hebrew SeniorLife
Boston, MA
USA

Robert Newcomer, PhD

Professor
Institute for Health & Aging
University of California
San Francisco, CA
USA

Tracy Novak, MHS

Associate Director
Director of Communications

The Lipitz Center for Integrated Health
Care

Department of Health Policy and
Management
Bloomberg School of Public Health
Johns Hopkins University
Baltimore, MD
USA

**Joo-bong Park Oh, MN, MS,
PsyD, RN**

Supervisor
LAC USC Medical Center
Los Angeles, CA
USA

Anthony J. Perry, MD

Director, Johnston R. Bowman Health
Center
Associate Professor of Internal Medicine
Rush University Medical Center
Chicago, IL
USA

Maria C. Raven, MD, MPH, MSc

Assistant Professor
Department of Emergency Medicine
Division of General Internal Medicine
New York University School of Medicine
Bellevue Hospital Center
New York, NY
USA

**Carolyn J. Reconnu, RN,
BSN, CCM**

Manager
Health Management Program
Oklahoma Health Care Authority
Oklahoma City, OK
USA

Daniel A. Reece, MSW, LCSW

PeaceHealth Oregon Region
Strategy, Innovation and Development
Eugene, OR
USA

Karyn Rizzo, RN, CHPN, GCNS

Executive Director
Notre Dame Hospice
Worcester, MA

Benjamin Ronk, BA

Visiting Research Specialist
College of Nursing
University of Illinois at Chicago
Chicago, IL
USA

Madeleine Rooney, MSW, LCSW

Program Coordinator, Transitional Care
Older Adult Programs
Rush University Medical Center
Chicago, IL
USA

Susan Rosenbek, RN, MS

Division of Health Care Policy and
Research
Department of Medicine
University of Colorado
Denver, CO
USA

Joseph L. Ruby, BA, MA

President & CEO
Area Agency on Aging
Uniontown, OH
USA

Jennifer Schore, MSW, MS

Mathematica Policy Research
Princeton, NJ
USA

Gayle E. Shier, MSW

Program Coordinator
Rush University Medical Center
Chicago, IL
USA

Stephen A. Somers, PhD

Center for Health Care Strategies
Hamilton, NJ
USA

Brenda Sulick, PhD

Vice President
Congressional Affairs & Advocacy
National PACE Association
Alexandria, VA
USA

Chandra L. Torgerson, RN, BSN, MS

SVP Quality Management and Chief
Nursing Officer
UnitedHealthcare Medicare & Retirement

Christine van Reenen, PhD

Senior Vice President for Public Policy
National PACE Association
Alexandria, VA
USA

Patricia J. Volland, MSW, MBA

The New York Academy of Medicine
Senior Vice President, Strategy and
Business Development
Director, Social Work Leadership Institute
New York, NY
USA

Valerie Waldschmidt, BSE

Visiting Research Coordinator
College of Nursing
Institute for Healthcare Innovation
University of Illinois at Chicago
Chicago, IL
USA

Nancy Whitelaw, PhD

Senior Vice President
Healthy Aging
National Council on Aging
Washington, DC
USA

Adam B. Wilcox, PhD

Assistant Professor
Department of Biomedical Informatics
College of Physicians and Surgeons
Columbia University
New York, NY
USA

Mary E. Wright

Program Associate, Social Work
Leadership Institute, and Executive
Assistant
New York Academy of Medicine
New York, NY
USA

Phyllis Yoders, RN, BSN

Long Term Care Nursing Consultant
Area Agency on Aging
Uniontown, OH
USA

Weon-seob Yoo, PhD, MPH, MD

Assistant Professor
College of Medicine
Eulji University
Joong-Gu, Daejeon
Republic of Korea

Chad Zhu, MS

Research and Data Analysis Division
Washington State Department of Social
and Health Services

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Introduction

Cheryl Schraeder and Paul Shelton

One of the most frequently noted criticisms of the U.S. health care industry is the fragmented nature of its delivery system and payment structure. This fragmented disconnect has resulted in excessive duplication and overuse of medical services, a lack of access to essential services, and patients who are not fully engaged in their care. Our health care industry is especially deficient in providing high quality, coordinated, and cost effective care to adults with multiple chronic health conditions.

Despite these limitations of the current health care system, a number of policymakers, health care professionals, and researchers are engaged in developing and testing new models of care for patients with co-morbidities. Many of these models involve physicians, nurses, and other professionals working in collaborative relationships with patients and their caregivers, implementing evidence-based best practices and comprehensive coordinated care. The primary goals of these programs are to reduce unnecessary emergency department visits and avoidable hospital admissions, and to improve patients' quality of life and satisfaction with care.

These program results to date have demonstrated success in improving processes of care, quality of life, and satisfaction with care for multi-morbid patients, but have produced limited success in reducing their use and cost of health services. However, the results suggest that certain components are integral to and have the potential to be cost effective when included in comprehensive efforts to manage the health care needs of adults with multiple chronic illnesses.

This book is intended for medical, nursing, allied health, and social service professionals, and students who are interested in and/or involved in providing care and the coordination of health and community services for chronically ill adults. It presents concise information drawn from a number of disciplines and sources that has been learned over the past two plus decades from pilot studies, randomized clinical trials, and federal demonstrations that can be used as a resource and starting point for improvements in the delivery of chronic care.

These lessons learned are presented in two major sections. The first section presents background on the theoretical concepts of comprehensive care coordination, including: the demographic and health characteristics of chronically ill adults; relevant coordinated care practices in the acute, primary, and community setting; intervention components that have been successful and are essential in reducing hospital readmissions; different aspects and approaches to program evaluation; essential elements of health information technology systems; alternative payment methods for supporting chronic care management; and

approaches to educating interdisciplinary team members. The second section uses a case study format to present a number of nationally recognized best practices that use different approaches in providing comprehensive care coordination, including: community-based primary care; transitional care; acute care discharge planning; and managed care and integrated health care systems. Programs are also described that provide services to Medicaid and Medicare populations, services for patients with specific chronic conditions, telemedicine services, and an example of a population-based approach to chronic illness in the Republic of Korea.

In the pages that follow we have tried to present a picture of some notions of what evidence-based, best practice comprehensive coordinated care might look like, as well as different ways it is currently provided and could be delivered in the future. Although the quest for the best pathway to high quality, cost effective chronic illness care remains elusive, the search will likely gain momentum, especially in an electrically charged atmosphere of health care reform, and the rapidly aging of America. It is our hope that the information contained in the following chapters makes some contribution to the development of innovative models that improve the quality of life and medical care of chronically ill adults.

Part 1

Theoretical concepts

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Chapter 1

Chronic illness

*Paul Shelton, Cheryl Schraeder, Michael Berkes,
and Benjamin Ronk*

Introduction

The demographic landscape of the United States has changed significantly. Americans are living longer than ever before. The average life span has increased from 47 years for individuals born in 1900 to 78 years for those born in 2006 (National Center for Health Statistics [NCHS] 2010). The result has been an exponential growth in the number and percentage of older Americans, which is unique to our nation's history. This longevity is primarily due to advances in modern medical science that have produced new screening and diagnostic technologies, pharmaceuticals, and medical procedures, as well as comprehensive initiatives that have greatly diminished or eliminated infectious diseases and improved public health problems. Americans living in the twenty-first century can expect to live longer than any previous generation. Longer life expectancy combined with the baby-boom generation, individuals born after World War II from 1946 through 1964, will double the number of individuals who are 65 years and older during the next 25 years.

This aging of America has created problems and challenges for our health care system. As longevity has increased so have the numbers of Americans living with chronic illnesses. Chronic illnesses afflict people of all ages, and although a majority of individuals living with chronic illnesses are not elderly, the likelihood of having a chronic illness increases dramatically with advancing age. Current projections estimate that approximately 66% of Americans 18 years of age and older suffer from at least one chronic illness, and as much as 80% of individuals 50 years of age and older suffer from at least one chronic illness (Machlin *et al.* 2008). These individuals seek and receive health care in a system that is designed, structured, and financed for treating acute episodes of care. The current system has been extensively criticized for being overly deficient in providing coordinated care for individuals with chronic illnesses who are primarily insured through Medicare and Medicaid (Institute of Medicine [IOM] 2001), and who are not receiving optimum chronic illness care (McGlynn *et al.* 2003).

The new generation of older Americans, the baby boomers, will be distinctly different from previous generations. They will be more educated, have more discretionary income, be more racially diverse, have fewer children, and have less disability compared

to their parent's generation (Federal Interagency Forum on Aging-Related Statistics 2008; IOM 2008). Their sheer numbers alone will dramatically affect the future of our health care system. During the next two decades the number of older adults will double, from approximately 37 million to over 70 million, accounting for an 8% overall increase within the total population, currently from 12% to 20% (IOM 2008). While this approaching demographic shift has been anticipated for over 50 years, our health care system is not prepared for its arrival. More providers with specialized training and resources, and new approaches to delivering chronic care are needed to meet the aging population's health care needs (Bodenheimer *et al.* 2009; IOM 2008). Presenting a stark reality, the IOM (2008) asserted that providers are inadequately prepared in general knowledge of geriatrics, the health care workforce is not large enough to meet older patients' needs, and the scarcity of workers currently specializing in geriatrics is even more pronounced. These shortages will become more pronounced in the future.

According to the IOM (2001), improving care for the chronically ill is one of the most important health care challenges facing our nation today. The IOM report makes clear that there are no easy means or readily available answers to improving this care. Despite some consensus regarding what optimum chronic care should resemble, its delivery remains elusive (Wolff & Boulton 2005). Research has demonstrated that achieving and sustaining improvements in the care coordination and medical management of these chronically ill adults is extremely difficult and is hindered by a general lack of knowledge, experience, and financial mechanisms necessary for the optimal care for this large and ever expanding segment of the population (Norris *et al.* 2008; Wallace 2005). Dysfunctional incentives have created fragmentation within our current system which fails to address the underlying causes of disease, and far too many care decisions are not under the control of clinicians and patients.

In this chapter we (1) define chronic illness, its general prevalence, and the main causes for its dramatic increase; (2) present a demographic profile of the adult population 55 years of age and older, (3) present a demographic profile for adults 65 years of age or older, with additional characteristics related to Medicare beneficiaries; and (4) present specific characteristics of chronically ill adults. A basic understanding of the scope and magnitude of chronic illness is necessary in order to begin to design, implement, and evaluate effective comprehensive care coordination programs for the tidal wave of chronically ill adults who will hit the health care system, especially Medicare, with brute force in the very near future.

What is a chronic illness?

Chronic illness is a general term that refers to a diagnosed illness, functional limitation, or cognitive impairment that lasts at least a year, places limits on a person's daily activities, and often requires regular attention and medical care (Hwang *et al.* 2001; Anderson 2010). Chronic illnesses are often preventable, usually develop in later adulthood, and last for years. They are typically managed with proper care from clinicians, self-care activities, and often with help from family members acting as informal caregivers. Some of the most prevalent chronic illnesses include arthritis, asthma/bronchitis, cancer, cardiovascular