CURRICULUM DEVELOPMENT FOR MEDICAL EDUCATION
A Six-Step Approach

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At a time when society is demanding accountability from the medical education system and residency review committees are demanding written curricula, this book offers a practical, yet theoretically sound, approach to curriculum development in medicine. Short, practical, and generic in its approach, the book begins with an overview of a six-step approach to curriculum development. Each succeeding chapter then covers one of the six steps: problem identification, targeted needs assessment, goals and objectives, educational methods, implementation, and evaluation. Additional chapters address curriculum maintenance, enhancement, and dissemination. Throughout, examples are used to illustrate major points. An appendix provides the reader with a selected list of published and unpublished resources on funding, faculty development, and already developed curricula. Curriculum Development for Medical Education is designed for use by program directors and others who are responsible for the educational experiences of medical students, residents, fellows, and clinical practitioners.

"The authors, from the field of general internal medicine, describe universal ideas that should be helpful in curriculum development in general internal medicine as well as general pediatrics, family medicine, other specialties, and nursing, whether at the medical student, resident, or other trainee level."—William Reichel, M.D., Clinical Professor of Family Medicine, Georgetown University School of Medicine

"Demonstrates a unique approach to use of a curriculum framework to address educational problems at any stage of health professional development . . . including education of patients and institutions. An excellent basic text for any of the health professions."—Barbara K. Redman, Ph.D., R.N., F.A.A.N., Dean and Professor, University of Connecticut School of Nursing; Former Executive Director, American Nurses Association

"A detailed, comprehensive guide to this critical process in medical education."—Kelley M. Skeff, M.D., Ph.D., Associate Professor, Department of Medicine, Stanford University School of Medicine, and Principal Investigator, Stanford Faculty Development Program

"Defining curriculum as a planned educational experience, this book builds on the best experience from other fields of health education. It comes to print at a time when medical education seems poised for such an antidote to conventional pedagogic methods."—Lawrence W. Green, Dr.P.H., Director, Institute of Health Promotion Research, Faculty of Graduate Studies, University of British Columbia, Vancouver

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To the many faculty members
who strive to improve medical education
by developing, implementing, and evaluating
curricula in the health sciences.
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CURRICULUM DEVELOPMENT FOR MEDICAL EDUCATION
Introduction

PURPOSE

The purpose of this book is to provide a practical, theoretically sound approach to developing, implementing, evaluating, and continually improving educational experiences in medicine.

TARGET AUDIENCE

This book is designed for use by program directors and others who are responsible for the educational experiences of students, residents, fellows, and clinical practitioners. It should be particularly helpful to those who are beginning or are in the midst of developing a curriculum.

DEFINITION OF THE CURRICULUM

In this book, a curriculum is defined as a planned educational experience. This definition encompasses a breadth of educational experiences, from one or more sessions on a specific subject, to a clinical rotation or clerkship, to an entire training program.

RATIONALE FOR THE BOOK

It is the responsibility of program directors and other medical faculty to plan educational experiences, often without having received training or acquired experience in such endeavors, and often in the presence of limited resources and significant institutional constraints. Recently, the Accreditation Council for Graduate Medical Education in the United States and its Residency Review Committees began to require written curricula (1).

Ideally, medical education should change as our knowledge base changes and as the needs, or the perceived needs, of patients, medical practitioners, and society change. Some contemporary demands for change and curriculum development are listed in Table I.1. This book assumes that medical educators will benefit from learning a practical, generic, and timeless approach to curriculum development that can address today’s as well as tomorrow’s needs.

BACKGROUND

The approach described in this book has evolved over the past 11 years, during which time the authors have taught curriculum development and evaluation skills to 101
Table I.1. Some Contemporary Demands for Medical Education

Generic Demands
- Integrate principles of clinical epidemiology, clinical decision making, evidence-based medicine, and cost-effectiveness into all clinical training.
- Emphasize a patient-centered, problem-oriented, as opposed to a disease-oriented, approach in clinical training.
- Emphasize a holistic, biopsychosocial approach in most clinical training, rather than separate the biomedical from the psychosocial components of care.
- Train primary care physicians in population- and community-centered, as well as person-centered, approaches to providing health care.
- In recognition of the constantly evolving nature of medical knowledge and the impossibility of imparting a complete knowledge base, set of skills, or pattern of practice to trainees, focus the content of training on what is most relevant today, train physicians as effective problem solvers who can efficiently access an ever-evolving medical knowledge base, and motivate physicians to become effective, self-directed, lifelong learners.
- In recognition of the increasing complexity of medical care delivery, train physicians as managers and team members.
- Help physicians become proficient in recognizing and managing personal feelings, beliefs, values, and needs that can subconsciously affect their relations with patients and others (self-awareness).
- Increase the quantity and quality of clinical training in ambulatory, same-day surgery, subacute care, and chronic care settings, and reduce the amount of training in inpatient services of acute hospitals, as necessary to meet training needs.
- Train the number of primary care physicians and specialty physicians required to meet societal needs.
- Certify competence in procedures.
- Develop faculty to meet the above demands.

Demands for Specific Curricula
- Clinical epidemiology and decision making
- Informatics
- Interviewing/communication/patient education skills
- Behavioral/psychosocial medicine
- Management and team skills
- Preventive medicine
- Nutrition
- Geriatrics
- Training in new surgical (e.g., video-assisted, minimally invasive) techniques for practicing surgeons
- Primary care–oriented residency programs
- Specific curricula for primary care physicians
  - Dermatology
  - Gynecology
  - Musculoskeletal medicine
  - Ophthalmology
  - Otolaryngology
  - Minor surgery
  - Practice management
  - Environmental/occupational medicine
- Teaching and curriculum development skills for clinician-educators
faculty and fellows in the Johns Hopkins University Faculty Development Program for Clinician-Educators. Participants in the program’s 10-month-long Curriculum Development Workshop have developed and implemented 42 medical curricula, in topics as diverse as advance directives, office gynecology for the generalist, a renal elective for internal medicine residents, and an office-based preceptorship for first-year medical students.

OVERVIEW OF BOOK

Chapter 1 presents an overview of a six-step approach to curriculum development. Chapters 2 through 7 describe each step in detail. Chapter 8 discusses how to maintain and improve curricula over time. Chapter 9 discusses how to disseminate curricula within and beyond institutions.

Throughout the book, examples are provided to illustrate major points. Most examples come from the real-life curricular experiences of the authors or their colleagues but may have been adapted for the sake of brevity or clarity. Some examples are taken from the literature; those that are fictitious were designed to be realistic and to demonstrate an important concept or principle.

Chapters 2 through 9 end with questions that encourage the reader to review the principles discussed in each chapter and to apply them to a desired, intended, or existing curriculum. These chapters include, in addition to the list of specific references that are cited in the text, an annotated list of general references that can guide the reader who is interested in pursuing a particular topic in greater depth.

Appendix A provides examples of curricula that have progressed through all 6 steps, and Appendix B supplements the chapter references by providing the reader with a selected list of published and unpublished resources for funding, faculty development, and already-developed curricula. At the end of the book, there is an evaluation sheet, which we hope you will return, so that the next edition of this book (if there is one) can meet the needs of our readers even better than this edition.

REFERENCE