

Contents

<i>Chapter</i>	<i>Page</i>
1. SUMMARY AND CONCLUSIONS	3
Introduction.	3
Current Activities	4
Findings and Conclusions.	5
supply	5
Requirements	7
2. SUPPLY	15
Aggregate Supply.	15
Specialty Supply	23
Locational Distribution	30
Summary.	38
3. REQUIREMENTS	45
Introduction.	45
Economic Models.	47
The Bureau of Labor Statistics Model	47
Bureau of Health Manpower Model	49
The Framework.	50
The Baseline Configuration	53
Contingency Modeling	59
Productivity	61
The Graduate Medical Education National Advisory Committee Model	62
Comparison of the BHM and GMENAC Models	72
Productivity.	77
Locational Requirements	80
BIBLIOGRAPHY.	85

List of Tables

<i>Table No.</i>	<i>Page</i>
1. Derivation of Male and Female MD Retirement Rates and Death Rates by 5-Year Age Cohort	16
2. MD First-Year Enrollment Projections Using 1977 First-Year Enrollment as Base, to 1987	17
3. DO First-Year Enrollment Projections Using 1976 First-Year Enrollment as Base, to 1987	17
4. First-Year Enrollments in Medical and Osteopathic Schools Projected Under the Basic Assumption; 1978-79 Through 1987-88.	18
5. U.S.-Trained Physicians, Graduates; Projected 1978-79 Through 1989-90.	18
6. U.S.-Trained Physicians, Graduates; Projected for 1980 and 1990.	18
7. Supply of Active Foreign-Trained Physicians, Using Basic Methodology, Projected 1975-9(1.	20
8. Basic, High, and Low Projections of the FMG Active Supply	20

Contents—continued

<i>Table No.</i>	<i>Page</i>
9. Supply of Active Physicians by Country of Medical Education Using Basic Methodology: 1974 and Projected 1975-90	22
10. Supply of Active Physicians by Country of Medical Education Using Basic Methodology: Actual 1974, 1975; Projected 1980-90	22
11. Data Sources on Physician Specialty Supply.	24
12. Internship and Residency Data Sources.	25
13. First-Year Residency Distribution With Subspecialty Adjustment: Sept. 1, 1974	28
14. Percent Distribution of U. S./CMG First-Year Residency Projections Using Simple Linear Regressions	30
15. Percent Distribution of FMG First-Year Residency Projections Using Simple Linear Regressions	31
16. Active Physicians, by Major Specialty Group: Actual 1974; Projected 1980-9(3	32
17. Supply of Active Physicians, by Specialty :Actual 1974; Projected 1980-90).	33
18. Patient Care MDs by Selected Specialties and for High and Low States, 1976	34
19. Non-Federal Physicians Providing Patient Care in Metropolitan and Nonmetropolitan Areas, 1963-75	34
20. New Physicians Entering Practice, 1973 to 1987	36
21. Percent of New Physicians Expected To Enter Primary Care	37
22. Projected County Classes of Newly Practicing Physicians.	37
23. Usual Source of Care for Urban Underserved Areas	38
24. Estimated Principal-Provider Patient Loads of General Practitioners, Family Practitioners, and General Internists.	41
25. Comparisons of Supply With Requirements Using Different Models	46
26. 1960's Projections of Physician Requirements in 1975	47
27. Bureau of Labor Statistics Projections of Physician Supply and Requirements, 1985.	48
28. Population Matrix Used in the BHM Model	51
29. Health Care Categories Used in the BHM Model	51
30. Projected Shifts in Age and Income Distribution, 1970-90	52
31. Projected Utilization Growth Factors, 1975-90	53
32. Prevalence of Selected Chronic Conditions Reported in Health [Interviews, by Family Income	54
33. Number of Disability Days per Person per Year by Family Income, 1973.	54
34. Number of Physician Visits per Year by Poor and Not Poor Status and for Whites and Others, 1964 and 1973	55
35. Number of Discharges From and Average Length of Stay in Short-Stay Hospitals, by Income Status and Color, 1964and 1973	55
36. Estimated Growth in Per Capita Utilization, Four Forms of Health Care	56
37. Increase in Demand From Population and Per Capita Utilization Changes, 1975 to 1990, BHM Model	56
38. Dependence of Trend Projections on Alternative Starting Dates in the Baseline Data	64
39. Comparison of Linear Versus Logarithmic Extrapolation of Utilization Data.	65
40. Allocation of Physicians by Type and Setting of Care for the 1975 Base Year, BHM Model	66
41. Illustrative Computation of Manpower Requirements.	67
42. Specialty Areas and Subspecialties for Which Requirements Estimates Are Being Planned or Considered by GMENAC	68
43. The Average Practice Profile of General Surgeons.	71
44. Proportion of Persons Whose Experience With Physician Visits Is Beyond the Critical Threshold	72
45. Percent of Ethnic Groups Dissatisfied With Aspects of the Medical Care System	72
46. Regional Differences in Certain Health-Care Statistics, United States, 1969-70	79
47. Shortage, Adequate, and Surplus Levels of Primary Care Physicians	80
48. Need for Primary Care Physicians and Psychiatrists in 1990	81

Contents—continued

<i>Table No.</i>	<i>Page</i>
49. Criteria for Unmet Need Calculation by Area	82
50. Physician Encounters per Physician and Physician Encounters per Physician Hour by Selected Cohorts, National Health Service Corps, 1976.	84

List of Figures

<i>Figure No.</i>	<i>Page</i>
1. Diagram of Projection of Supply of Active Physicians Through 1990	21
2. Trend Data on Number of First-Year Residents: Total, Primary, Nonprimary Care Specialties; 1960, 1968, 1974, and 1976	26
3. Trend in Number of First-Year Allopathic Residents in Four Selected Specialties	26
4. Projection of Active Physicians by Specialty.	29
5. Frequency Distribution of Physician Availability Indexes—Primary Care Physicians and Surgeons for the 204 HSAs.	35
6. Per Capita Utilization of Physician office Services, 1966-76	57
7. Per Capita Utilization of Short-Term Hospital Services, 1966-76	58
8. Per Capita Utilization of Dental office Services, 1966-76	59
9. Per Capita Utilization of Community Pharmacy Services, 1966-76	60
10. Non-Price-Related Per Capita Utilization Trends, Physician Office Services, 1966-76.	61
11. Non-Price-Related Per Capita Utilization Trends, Short-Term Hospital Services, 1966 -76.	62
12. Non-Price-Related Per Capita Utilization Trends, Dental Office Services, 1968-76	63
13. Non-Price-Related Per Capita Utilization Trends, Community Pharmacy Services, 1966 -76.	64
14. Illustrative Procedure for Arriving at Adjusted Needs Estimates	68
15. GMENAC Model for Estimating Physician Requirements	69
16. Consumer Satisfaction With Physician Services	73
17. Consumer Satisfaction With Physician Services, by Nature of the Experience	74