Contents

SECTION 1: PUBLIC HEALTH

1. Changing Concepts of Health and Prevention of Disease 3
CM Marya

Determinants of Health 3
Theories of Disease Causation 4
Levels or Categories of Prevention 6
Levels of Prevention 6
Approaches of Prevention 8

2. Basic Epidemiology 9
Abdul Rashid Khan, KA Narayan

Introduction to Epidemiology 9
Measuring Health 11
Epidemiological Studies 13
Screening 20
Association and Causation 21

3. Biostatistics 23
KA Narayan, Abdul Rashid Khan

Why Learn Statistics? 23
How Data is Collected? 24
Data Display and Summary 24
Data Summary 26
Statistical Distributions 28
Chi Square Distribution 29
Tests of Significance 29
Statistical Significance 30
Sampling 31

4. Environment and Health 34
CM Marya

Water Quality—Criteria and Standards 39
Hardness of Water 42
Special Treatment of Water 43
Air 43
Noise 44

Radiation 45
Housing 46
Waste Management 47

5. Organization of the Health System in India 49
CM Marya

Voluntary Health Agencies in India 50
Indian Council for Child Welfare (ICCW) 50
Family Planning Association of India 51
Nutrition Foundation of India 51
Voluntary Health Association of India (VHAI) 51
The Kasturba Gandhi Trust 51
Action for Autism 52
Ajit Foundation 52
Chethana 52
All India Women's Conference (AIWC) 52
Pragati 52
The Hind Kusht Nivaran Sangh 52

6. Primary Health Care 55
CM Marya

Concept of Primary Health Care 55
Origin of Primary Health Care 55
Alma-Ata 56
Components of Primary Health Care 56
Declaration of Alma-Ata 58

7. Health Agencies of the World 61
CM Marya

International Red Cross and Red Crescent Movement 62
CARE USA 62
Refugee and Disaster Relief Organizations 63
WHO (World Health Organization) 63
PAHO (The Pan, American Health Organization) 66
FAO (The Food and Agriculture Organization) 67
UNDP (The United Nations Development Program) 68
PAHEF (The Pan-American Health and Education Foundation) 68
ICRC (International Committee of the Red Cross) 69
The World Bank 70
UNFPA (United Nations Population Fund) 70
CARE (Cooperative for American Relief Everywhere) 72
The Rockefeller Foundation [RF] 72
The Ford Foundation 73
World Health Days 73
Important Dates – World Health 74

8. Nutrition and Health 75
RK Marya

The Basal Energy Requirement 75
Physical Work 75
Total Caloric Requirements 75
Minerals 79
Fat Soluble Vitamins 79
Water Soluble Vitamins 81

Disorders of Malnutrition (Undernutrition) 82
Disorders of Overnutrition 84

SECTION 2: DENTAL PUBLIC HEALTH

9. Introduction to Public Health Dentistry 87
CM Marya

Definitions of Public Health 87
Essential Public Health Services 88
Concepts of Public Health 88
Public Health Problem 88
Impact of Oral Disease 88
Milestones in Dental Public Health 90
Historical Overview 90
Aims of Dental Public Health 92
Tools of Dental Public Health 93
Procedural Steps in Dental Public Health 93
Functions of Public Health Dentistry 95
Public Health Milestones in Independent India 95

10. Epidemiology of Dental Caries 98
CM Marya

Definition 98
Epidemiology 98
Trends in Dental Caries 100
Reasons for Caries Decline and Rise 100
Dental Caries Pandemic 100
Caries Incidence in Europe 100
Caries Incidence in the United States 100
Indian Scenario 100
Dental Caries in Underdeveloped Countries 101
Probable Reasons for the Marked Decline in Dental Caries in Most Western Industrialized Countries 101
The Caries Process (Pathogenesis) 102
Theories of Dental Caries 103
Areas Prone to Dental Caries 104
Importance of Diagnosis of Dental Caries 104
Classification of Dental Caries 104
Enamel Changes During Early Caries Lesion Development 105
Changes Recorded in Enamel Covered by Dental Plaque 105
Histopathology of Dental Caries 105
Caries of the Enamel 105
Caries of the Dentine 106
Various Zones of Caries of Dentine 107
Caries in Dentine 108
Root Caries 108
Susceptibility of Different Teeth 108
Factors Affecting the Epidemiology of Dental Caries 108
Factors Affecting Development of Dental Caries 109
Host and Teeth Factors 109
Agent Factors 110
Environmental Factors 111
Early Childhood Caries 111
Root Caries 111

11. Epidemiology of Periodontal Disease 114
CM Marya

Disease Process and Changing Concept 114
Epidemiology 114
Prevalence of Gingivitis 114
Prevalence of Periodontitis 115
Causes of Periodontal Disease 116
Risk Factors in Periodontal Disease 117
Structure of the Periodontal Tissues 117
Gingivae 117
Periodontal Ligament 118
The Natural History of Periodontal Disease 118
Periodontitis 119
Classification of Periodontal Disease 119
Determinants of Periodontitis 119

12. Epidemiology, Etiology and Prevention of Oral Cancer 126
CM Marya, Rakesh Dhankar

Incidence 126
In India and Sri Lanka 126
Western Countries 126
Trends 126
Smoked Tobacco 127
Types 127
Constituents of Tobacco Smoke 129
Smokeless Tobacco 130
Alcohol 131
Mouthwash Use 131
Vitamins and Essential Minerals 131
Occupation 131
Sunlight 131
Chemical Agents 131
Potentially Malignant Lesions 131
Viral Infection 132
Trauma 132
Pathogenesis 132
Pathological Types 133
Diagnostic Evaluation 135
Staging 135
The Exam Review 136
The Importance of Early Detection 140
Levels of Prevention of Oral Cancer 140
Public Health Approaches to Prevention of Oral Cancer 142
Tobacco/Smoking Cessation 142

13. Epidemiology and Etiology of Malocclusion 144
Gurkeerat Singh

An Epidemiological View of Malocclusion 144
Classification of Malocclusion 144
Angle's Classification of Malocclusion 144
Dewey's Modification of Angle's Classification of Malocclusion 147
Bennette's Classification of Malocclusion 147

Skeletal Classification 148
Ackerman-Profitt System of Classification 148
Incisor Classification 148
Prevalence of Malocclusion 150
Etiology of Malocclusion 153
Untreated Malocclusions 155

14. Dental Health Education 156
CM Marya

Definition 156
Contents of Health Education 156
Principles of Health Education 157
Models of Health Education 158
Communication 159
Key Elements in Communication 159
Barriers or Road Block of Communication 160
Aids in Health Education 160
Methods in Health Education 161
Steps in Health Education Planning 162
Steps of Learning 163
Various Health Education Methods and Media 163

15. Oral Health Survey Procedures 165
CM Marya

Scientific Method in Conducting a Dental Survey 165
Oral Health Surveys (WHO-1997) 167
Pathfinder Surveys 168
Organizing the Survey 170
Reliability and Validity of Data 170
Implementing the Survey 171
Assessment Form 173
Obtaining Assistance from WHO 181
Post Survey Action and Preparation of Survey Reports 181

16. Dental Indices 185
CM Marya

Definition 185
Properties of an Ideal Index 185
Types of Indices 186
Purpose and Uses of an Index 186
Indices Commonly Used in Dentistry 187
Periodontal Indices 187
Plaque Control Record 188
Navy Plaque Index 188
Oral Hygiene Index (OHI) 189
Patient Hygiene Performance Index (PHP Index) 192
Gingival Index (GI) 193
Calculus Surface Index 193
Periodontal Index (PI) 193
Periodontal Disease Index (PDI) 194
Gingival Bleeding Index (GBI) 195
Papillary-Marginal-Attached Gingival Index 196
Gingival Bone Count Index 197

Community Periodontal Index of Treatmant Needs (CPITN) 197
Community Periodontal Index (CPI) 201
Turesky-Gilmore-Glickman Modification of the Quigley-Hein Plaque Index 202
The Navy Periodontal Disease Index (NPDI) 202
Indices for Dental Caries 204
Decayed, Missing and Filled Teeth (DMFT) Index 204
WHO Modification of DMF Index 205
Dental Caries Index for Deciduous Teeth (dmft and dmfs) 205
Mixed Dentition 206
WHO Index for Dental Caries 206
Significant Caries Index 207
Fluorosis Index 207
Thylstrup-Fejerskov Index of Fluorosis (TF) 208
Tooth Surface Index of Fluorosis (TSIF) 208
Indices for Malocclusion 210
The Index of Orthodontic Treatment Need (IOTN) 210

17. Dental Auxiliaries 212
CM Marya

Dental Team 212
Comprehensive Dental Care 212
Definition 212
Classification 213
Types of Supervision 213
Nonoperating Auxiliaries 214
Operating Auxiliaries 215
Auxiliaries Personnel in India 216
Four-Handed Dentistry 216

18. Finance in Dentistry 218
CM Marya

Preventive and Diagnostic Dental Care 218
Basic Dental Care and Dental Procedures 218
Major Dental Care 218
Common Terms 218
Mechanism of Payment for Dental Care 219
Postpayment Plan 219
Private Third Party Prepayment Plans 219
Reimbursement of Dentists in Prepayment Plans 220
Private Third Party Prepayment Plans 220
Health Maintenance Organization (HMO) 222
Staff Model 222
Group Model 222
Independent Practice Association (IPA) 222
Capitated Network or Direct Contract Model 222
Capitation Plan 222
Public Programs 223
Medicare 223
Medicaid 223

19. Oral Health Promotion 224
CM Marya

Concept of Health 224

Definition of Health Promotion 224
Principles of Health Promotion 224
Oral Health Promotion 225
Strategies of Oral Health Promotion 225
Approaches in Oral Health Promotion 226
Concepts in Health Promotion 226
Elements of Health Promotion 226
Methods of Oral Health Promotion 227
Stages of Behavior Change 227
Goals of Oral Health 228
Global Oral Health Goals 228
National Oral Health Program in India 230
The Magnitude of the Problem 231
Status of Oral Health Care System in India 231
Economic Burden of Oral Diseases 232
Strategies for Implementation 232
Additional Measures Suggested 233
Involvement and Reorientation of the Dentists Working in Urban Areas 234
Implementation of Primary Preventive Package through the School Health Schemes in the Different Urban Areas 234
Reorientation of Dental Education in India 235
Involvement of Other Allied Departments 235
National Institute of Dental Research (NIDR) 235
National Training Center 235

20. Planning and Evaluation 236
CM Marya

Definition 236
Purpose of Planning 236
Uses of Planning 236
Planning Cycle 236
Evaluation 238
Reasons for Evaluation 239

21. School Dental Health Programs 240
CM Marya

Models 240
The Three-Component Model 240
The Eight-Component Model 240
Definition 241
Health Promoting Schools 242
Objectives of School Based Dental Health Program 243
Partners in School Oral Health Programs 243
Self-Applied Fluorides 243
School Based Sealant Program 243
School Water Fluoridation 244
Topical Fluoride Application Program 244
Oral Health Education 244
Guidelines for an Ideal School Dental Program 244
School Dental Health Programs 246
Learning about your Oral Health 246
Tattle Tooth I Program 246
Tattle Tooth II Program 247
Theta Program 247

Yukon Children's Dental Health Program 247
Askov Dental Health Education 248
The Maine School Oral Health Program 248
Elements of School Oral Health Program 248
Some School Based Oral Health Programs in Various Countries 249
Smiling Schools Project in Namibia 250
Dental Public Health Programs in Seychelles 250
School-Based Oral Health Education Program in China 250
School Oral Health Program in Kuwait 251
School Oral Health Program in India 251
Incremental Dental Care 251

22. Dental Council of India 253
CM Marya

Introduction 253
Objectives/Duties 253
Constitution and Composition of Council 254
Incorporation of Council 254
Mode of Election 254
Term of Office and Casual Vacancies 254
President and Vice-President of Council 254
The Executive Committee 255
Recognition of Dental Qualifications 255
Nonrecognition of Dental Qualifications 256
Qualifications of Dental Hygienists 256
Qualifications of Dental Mechanics 256
Effect of Recognition 256
Withdrawal of Recognition 256
Withdrawal of Recognition of Recognized Dental Qualification 256
Professional Conduct 257
The Indian Register 257

23. The Dentist Act of India and Indian Dental Association 258
CM Marya

The Dentists Act (29th March, 1948) 258
Introduction 258
The Dentists (Amendment) Act, 1993 (2nd April, 1993) 259
Indian Dental Association (IDA) 261
Objectives of IDA 261
Types of Membership 262
Head Office 262
State Branch 264

24. Ethics in Dentistry 265
CM Marya

Definition 265
Principles of Ethics 265
Code of Ethics for Dentists by Dental Council of India 267
Duties and Obligation of Dentists towards Patients and Public 267
Duties of One Dentist towards Another 267
Unethical Practices 268
General Principles for a Dental Professional Ethical Code in the Countries of the EU (European Union) 268

SECTION 3: PREVENTIVE DENTISTRY

25. Dental Plaque 273
CM Marya

Formation of Dental Plaque Biofilms 273
Supra and Subgingival Plaque 276
Significance of Dental Plaque 276

26. Plaque Control 277
CM Marya

Definition 277
Guidelines for Acceptance of Chemotherapeutic Products 277
Approaches in Plaque Control 277
Manual Toothbrushes 278
Powered Toothbrushes 279
Sonic and Ultrasonic Toothbrushes 281
Ionic Toothbrushes 281
Bionic Toothbrush—Soladey 281
Toothbrushing Techniques 282
The Bass Method: Sulcular Brushing 282
Modified Bass Technique 283
Stillman's Method 283
Modified Stillman's Technique 284
The Rolling Stroke 284
Charter's Method 284
Circular: The Fones Method 285
Vertical: Leonard Method 285
Physiologic: Smith's Method 285
Interdental Oral Hygiene Aids 285
Dental Floss 286
Floss Holder 288
Toothpicks 288
Interproximal Brushes 289
Single Tuft Brushes 289
Knitting Yarn 290
Gauze Strip 290
Pipe Cleaner 290
Wedge Stimulator 290
Adjunctive Aids 291
Ingredients 292
Abrasives 292
Humectant 293
Water 293
Binding Agent 293
Detergents 293
Flavoring Agent 293
Preservative 293
Therapeutic Agent 293
Sweetening Agents 293
Therapeutic Dentifrices 294
Anticaries 294
Anti-plaque Agents 294

Anticalculus 294
Antihypersensitivity 295
Whitening Agents 295
Disclosing Agents 297
Chemical Plaque Control 298
Vehicles for Delivery of Chemical Agents 298
Antibiotics 299
Enzymes 299
Phenols and Essential Oils 300
Quaternary Ammonium Compounds 301
Bisbiguanide Antiseptics 301
Natural Products 302
Metal Salts 302
Amine Alcohols 302
Fluorides 302
Oral Hygiene Promotion 303
Oral Prophylaxis 304
Steps in Oral Prophylaxis 304

27. Diet and Dental Caries 306
CM Marya

Role of Diet 306
Role of Saliva 307
Caries Mechanism 307
Human Observational Studies 307
Human Interventional Studies 308
Animal Experiment 309
Enamel Slab Experiments 309
Plaque pH Studies 309
Incubation Experiments 309
Evidence 309
The Basic Stephan Curve 310
Stephan Curve: Clinical Relevance 312
Dietary Factor and Dental Caries 312
Cariogenicity of Sugars 313
Carbohydrates and Dental Caries 313
Starches and Dental Caries 314
Fruits and Dental Caries 315
Protective Factors and Caries 315
Effect of Fluoride on Sugar-Caries Relationship 315
Non-sugar Sweeteners and Dental Caries 316
Limitations of Intense Sweeteners 316
Uses of Intense Sweeteners 316
Bulk Sweeteners 316

28. Caries Risk Assessment 317
CM Marya

Goals of Caries Risk Assesment 317
Caries Disease Indicators 317
Caries Risk Factors 318
Caries Protective Factors 318
Factors Relevant to Assessment of Dental Caries 319
Xerostomia 320
Xerostomia and Dental Caries 320

Classification 321
Caries Risk Assessment 321
Factors in Low, Moderate and High Caries Risk Assessment 321
Cariogram 322

29. Caries Activity Tests 324
CM Marya, Vandana Dahiya

Objectives of Caries Activity Tests 324
Advantages of Caries Activity Tests 324
Criteria of an Ideal Caries Activity Tests 324
Caries Activity and Caries Susceptibility 324
Various Caries Activity Tests 325
Streptococcus Mutans Screening Test 328

30. Fluorides in Dentistry 330
CM Marya

History of Water Fluoridation 330
Fluoride in Environment 331
Fluoride in Water and Atmosphere 331
Fluoride in Biosphere 332
Fluoride Metabolism 332
Pharmacokinetics of Fluoride 333
Artificial Fluoridation (Controlled Studies) 334
Effectiveness of Water Fluoridation 335
World Status of Fluoridation 335
Appropriate Levels of Fluoride in Drinking Water 335
Fluoride Compound Used in Water Fluoridation 336
Methods of Water Fluoridation 336
Feasibility of Water Fluoridation in India 337
Mechanism of Action of Fluorides 337
Increased Enamel Resistance 339
Inhibition of Bacterial Enzyme System 340
Increased Rate of Post Eruptive Maturation 340
Enhancing Remineralization 340
Improves Tooth Morphology 341
Fluoride Administration 341
Systemic Fluorides 342
Water Fluoridation 342
Requirements for Water Fluoridation 342
Economics of Fluoridation 342
Medical Aspect of Water Fluoridation 343
Fluoridation and the Law 343
Reasons for Cessation of Fluoridation 344
Ethics of Water Fluoridation 344
Pre-eruptive Effect of Water Fluoridation 344
Water Fluoridation and Root Surface Caries 344
Dietary Supplements 345
Topical Fluorides 348
Advantages and Disadvantages of Topical Fluorides 348
Mechanism of Action 348
Classification 349
Professionally Applied Fluorides [PATF] 349
Clinical Application 351

Fluoride Application Techniques 356
Self Applied Fluorides 358
Fluoride Dentifrices 358
Fluoride Mouthrinses 360
Methods of Preparation 360
Recommendations 360
Advantages 360
Fluoride Exposure from Multiple Sources 360
Evidence in Caries Reduction 361

31. Dental Fluorosis and its Prevention 363
CM Marya

Sources of Fluoride 363
Fluoride Intake 364
Fluoride Toxicity 366
Management of Acute Fluoride Toxicity 367
Lethal and Safe Doses of Fluoride 368
Dental Fluorosis and Enamel Opacities 368
Various Forms of Fluorosis 368
Prevention of Fluorosis 369
Defluoridation of Water 369
Various Methods of Defluoridation of Water 371
Defluoridation of Water Using Nalgonda Technique 373

32. Dental Caries Vaccine 375
Avinash J, CM Marya

History of Vaccination 375
Molecular Pathogenesis of Dental Caries 375
Basic Concepts 376
Different Types of Immunity 376
Vaccines 376
Specific Vaccine Targets 378
Routes of Immunization 378
Common Mucosal Immune System 379
Passive Immunization 380
Active Immunization in Humans 380
Passive Immune Approaches 380
Adjuvants and Delivery Systems for Dental Caries Vaccines 381
Timing and Target Population for Caries Vaccination 382
Recent Advances 382
Risks of Using Caries Vaccine 382
Prospects and Concerns 383
Public Health Aspects 383

33. Pit and Fissure Sealants 384
CM Marya

Classification of Pits and Fissures 384
Purpose of Sealant 384
Criteria for the Ideal Sealant 384
Rationale for Using Pit and Fissure Sealants 387
Procedure of Pit and Fissure Sealant Application 387
Indications for Use 388
Contraindications 388
Sealant Retention 388

Incipient Fissure Caries and Sealants 389
Preventive Resin Restorations 389
Fluoride Containing Sealants 390
Public Health Sealant Programs 390
Cost Effectiveness 390
Sealant Failure 391
Newer Sealants 391

34. Atraumatic Restorative Treatment 395
CM Marya

Principles 395
Reasons of Using Hand Instruments for ART 395
Material Used 395
Contraindications for ART 395
Instruments 395
Materials 396
Restoring One-surface Cavities Using ART 396
Treatment Material (Glass Ionomer as a Restorative Material) 397
Restoring Multiple-surface Cavities Using ART 398
Monitoring ART Restorations 399
Protocol for Failed or Defective Restoration 399
Advantages and Limitation of ART 399
Failure Prevention and Management 400

35. Prevention of Dental Caries 401
CM Marya

Caries Formation 401
Methods of Prevention of Dental Caries 402
Increase the Resistance of the Teeth 403
Combat Caries-inducing Microorganisms 403
Modify the Diet 403
Increase the Resistance of the Host/Teeth 404
Systemic Use of Fluoride 404
Topical Fluorides 405
Combat Caries-inducing Microorganisms/Plaque Removal and Control 406
Modify the Diet /Diet Control 407
Strategies for Prevention of Dental Caries 408
The Caries Balance 409
Modifying the Carious Process 410
Risk Groups for Dental Caries 410
Anticipatory Guidance: Parent and Patient Education 410
Levels of Prevention of Dental Caries 411
Behavior Modification in High Caries Risk Children 412
Preventive Therapy Based on Risk Factors 412
Behavior Modification in Geriatrics 412

36. Prevention of Periodontal Disease 415
CM Marya

Oral Hygiene Assessment 415
Stages of Periodontal Disease 415
Prevention of Periodontal Disease 416
Methods of Prevention of Periodontal Disease 417
Patients' Role in Preventive Periodontal Therapy 420
Supportive Periodontal Therapy (SPT) 420

37. Prevention of Malocclusion 422
CM Marya, Gurkeerat Singh

Introduction 422
Preventive Measures Undertaken (Preventive Orthodontics) 422
Parent Counseling 422
Caries Control 423
Space Maintenance 424
Exfoliation of Deciduous Teeth 424
Abnormal Frenal Attachments 424
Locked Permanent First Molars 424
Abnormal Oral Musculature 425
Space Maintenance (in the Deciduous and the Mixed Dentition) 425
Factors to be Considered for Space Maintenance 426
Ideal Requirements of Space Maintainers 427
Classification of Space Maintainers 427
Interceptive Orthodontics 427
Resolution of Crowding 431

38. Wasting Diseases of Teeth 434
CM Marya

Introduction 434
Tooth Wear 434
Attrition 434
Abrasion 434
Erosion 435
Abfraction 437
Epidemiology of Tooth Wear 437
Prevention of Tooth Wear 439

39. Prevention of Dental Trauma 441
CM Marya

Causes 441
Mechanism for the Action of the Mouthguards 442
Selection of a Mouthguard 442
Types of Mouthguard 443
Steps in Mouthguard Formation 444
Preventing Dental Injury in Childcare 445
Prevention of Dental Trauma 445
Primary Prevention 445
Playground Surfaces 446
Outdoor Home Playground Safety Checklist (CPSC) 446
Early Treatment of Large Overjets (Mixed Dentition) 447
Secondary Prevention 447
First Aid for an Avulsed Tooth 448
Dental Office Treatment for an Avulsed Tooth 448

40. Occupational Hazards in Dentistry 450
CM Marya

Prevalence 450
Definition 450

41. Infection Control in Dentistry 455
CM Marya

Infection Control 455

Transmission of Infection 456
Standard Precautions 456
Components of Infection Control 457
Treatment Room Features 465
Single-use Disposable Instruments 469
Handling of Biopsy Specimens 469
Use of Extracted Teeth in Dental Educational Settings 469
Biomedical Waste Management 469

SECTION 4: BEHAVIORAL SCIENCES

42. Sociology as Applied to Dental Public Health 473
Manik Razdan, CM Marya

Definition 473
Historical Role of Medicine 473
Evolution of Human Society 473
Variation in Disease Patterns with Changing Society 474
Changing Society and Patterns of Dental Diseases 474
The Socio-environmental Approach (Social Model) 475
Health and Social Factors 475
Social Classes and the Reaction of Each to Dental Care 476
Age Inequalities in Health 478
Gender Inequalities in Health 479
Ethnic Inequalities in Health 479
Cultural Pattern and Concepts Taboos as Related to Health 479
Taboos Related to Dentistry 480
Medical Anthropology 481
History of Medical Anthropology 481
Traditional Medical Systems 481
The Relation of Sociology to Anthropology 481

43. Child Psychology 483
Bhavna Gupta, Anil Gupta

Definitions 483
Importance of Learning Child Psychology 483
Theories of Child Psychology 483
Other Theory 487

44. Behavior Management in Community Dentistry 488
Sadanand K, Anil Gupta

Documentation/Categorizing Behavior 488
Variables Influencing Child Behavior 489
Clinic Setup 489
Behavior Management 490

SECTION 5: DENTAL PRACTICE

45. Dental Practice Management 497
CM Marya

Definition 497
Establishment of Dental Office 497

Selection of Place 497
Selection of Location 497
Selection of Building 498
Financial Assistance 498
Designing of Dental Office 498
Management of Dental Office 498
Personnel Management 498
Patient Management 499
Record Management 499
Accounting and Other Financial Aspects of Dental Practice 500
Factors Influencing Dental Practice 500
The Ways of Initiating a Dental Practice 500
Starting an Own Practice 500
Buying an Old Practice and/or Working with an Associate Dentist 500

46. Forensic Dentistry 501
CM Marya

Definition 501
Constituents of Forensic Odontology 501
History 501
Role of Teeth in Determination of Human Identity 502
Bite Marks 503
Mass Disaster 505
Age Estimation 505
Sex Identification 506
Internal and External Documentation and Communication Problems 506
Forensic Radiology 506
Child Abuse 507
Cheiloscopy 507
Forensic Anthropology 507
Computer Odontology 508

47. Computers in Dentistry 509
CM Marya

Parts of Computer 509
Applications of Computers in Dentistry 511

48. Ergonomics in Dentistry 517
CM Marya

Neck and Shoulder 517
Wrist and Hand 518
Lower Back Pain 518
Psychosocial Factors and Work-related MSDs in Dentistry 518
Prevention Strategies Work Place Intervention 518
Provide Sufficient Space 519
Accommodate Individual Preferences 519
Reduce Physical Effort 519
Instrument Design 519
Hand Instruments 519
Dental Handpieces 519
Lighting 520
Magnification 520
Operator Chair 520

Patient Chair 520
Posture/Positioning 520
Scheduling 521
Personal Protective Equipment 521

49. Consumer Protection Act 522
Avinash J, Swaroop Savanur

Introduction 522
Nature of the Legal System 522
Definitions 522
Consumer Disputes Redressal Agencies 523
Preventive Steps Against Litigation 525
Consent 526
Protection against Outcome of Litigation 528

50. Comprehensive Dental Care 529
Anil Ankola

Initial Care versus Maintenance Care 529
Prevention versus Treatment 529
Manpower Involved in Comprehensive Dental Care 529
Prerequisites for a Good Comprehensive Dental Care Program 530
Record Maintenance 530
Challenges and Limitations 530
Role of Public Health Dentists 530

Definitions 531

Index 541