



# IAPSM

Indian Association of  
Preventive & Social Medicine

## Inviting suggestions for revising the Community Medicine syllabus for Medical Graduates

Dear esteemed members,

IAPSM is requesting your views and opinion for revision of the community Medicine syllabus for medical graduates.

### Need:

There has been growing demand amongst the member of IAPSM that current syllabus of Community Medicine subject for Medical graduates is not relevant to modern need. It is containing lots of information which are obsolete or not appropriate to the expected roles of Medical Graduates. Community Medicine subject has moved from Sanitation to Sustainable development. Also order of the topics in teaching is lacking coherence due to which textbook have become the compilation of information than a guiding tool. There are views from across the India that in comparison to environment health management role of the Health system and health programs as a community health interventions have grown in last few decades. From Epidemiological studies to use of epidemiological understanding in management of community health problems has increased.

Based on the views and opinions of members on formal and informal platform by stakeholders it is thought about that as a professional body, IAPSM must shoulder the responsibility to prepare the Community Medicine syllabus for MBBS graduates keeping modern needs and their roles in mind. As a part of that a core team of IAPSM is constituted. It has reviewed the existing literature on the issue, taken the views from various members through formal and informal platform and a draft syllabus of Community Medicine is prepared for Medical graduates.

Background understanding used in preparation of syllabus are as below..

1. Current syllabus has many topics which are not relevant to modern time. Covering everything under the sun including sun has resulted into loss of focus from core areas of Community Medicine Subject.
2. Current syllabus are not meeting expected role of medical graduates. E.g. Health promotion component(in detail), managing health care system, if they join Primary Health care, adequate orientation about research
3. Many topics/sub topics like, environment-public health engineering, entomology, genetics, etc. are being taught in depth which is more than what expected from MBBS graduates.
4. **Current textbooks is full of information but lacks the proper order, logical flow and progression, i.e. context to learn various topics and progressive logical graduation of topics related with Community Medicine.**

5. Application of Epidemiology/preventive Medicine/Community Medicine are not covered clearly and adequately.
6. Relevant examples for the applied aspect of the topics are not covered in the current syllabus

### **Purpose of preparing the Community Medicine Syllabus :**

1. Making Community Medicine subject relevant and rational as per modern need and expected roles of Medical graduates.
2. Guiding curriculum development and Teaching/learning activities at medical colleges.
3. Submitting to Medical Council and concerned authorities for incorporating at appropriate places.
4. Guide to authors for writing a comprehensive and well articulated textbook.

### **Requesting inputs :**

You are requested to refer the draft Syllabus attached herewith. It contains list of chapters with topics and sub-topics. Also in the base syllabus draft order of the chapters suggested. Chapters are grouped keeping logical learning progression in mind i.e. from basic science to applied science. Based on above principles topics/chapters are grouped in three sections. They are as below.

- i. **First Section** : It is to be contained largely basic sciences related with individual and community health,
- ii. **Second Section** : It is to be contained Community Medicine related sciences and community health problems and their management.
- iii. **Third Section** : It is to be contained health system approach to manage the community health as well global approach and current practices in India in managing Community Health.

IAPSM is requesting your inputs to finalize it. **You are requested to refer guiding points given below and requesting to keep them in mind .**

1. **Only Topics/sub topics which are relevant to the time and role of Medical Graduates (Vital and essential) are to be suggested.**
2. **Flow of the topics/subtopics has to be logical and progressive.**
3. **Deadwoods i.e. topics/subtopics which are not required must be removed/reduced.**

### **Submission of views and suggestions:**

1. E mail for sending your inputs are : [academia.iapsm@gmail.com](mailto:academia.iapsm@gmail.com)
2. Give your comments citing page number/reference number to specify its location
3. Share your inputs in softcopy in word file attached. (Comments in compose box of mail may be missed out in compilation)

**Last date for Submitting your suggestions is : 10<sup>th</sup> Jun 2017**



**Draft Community Medicine Syllabus for Medical Graduates (UG) for inputs from the IAPSM members and experts in the Community Medicine.**

**Goal for teaching Community Medicine to Undergraduates :**

Medical graduate acquires knowledge and competencies needed to solve health problems of the community with emphasis on health promotion, disease prevention and applying cost-effective preventive, promotive and curative interventions as a Health leader through effective community participation.

**Specific objectives :**

MBBS graduates shall..

1. Know the concept and scope Community Medicine discipline.
2. Develop the understanding about the individual and community health outcomes
3. Understand social, biological, environmental, nutritional determinants and their relationship with health outcomes.
4. Learn the skills to promote healthy life styles in individual and community to prevent the disease and for the promotion of the health.
5. Acquire skills to prevent the disease transmission and protect individual and community against them.
6. Know the scope of research and biostatistics in health care and medical sciences.
7. Develop the deep understanding about epidemiology, various epidemiological studies and develop the skills to use them in health and medical sciences.
8. Develop understanding about the prevailing common epidemic prone diseases
9. Be able to identify outbreaks, investigate and control them.
10. Get deep understanding about Health needs of Community; identify community problems and causes/factors behind them.
11. Able to identify the different health needs and health problem in subgroups of Community with special focus on vulnerable groups
12. Acquire knowledge about health system, its structure and role in managing community health.
13. Be able to effectively integrate his clinical practice with the health systems of the country.
14. Get orientations about the important models of general health systems prevailing globally.
15. Have orientation about health care delivery system/services and its management.
16. Know the Indian health system, and various national health programs and legislations.
17. Get orientations about approaches being used in managing community health in India.
18. Be able to function as a health team leader for delivering primary level of health care, to the community

## : Chapters :

1. Community Medicine : Broader approach in Health care
  - a. Concept, Definition
  - b. Relevance and rationality of discipline
  - c. Evolution : Hygiene to Social development
  - d. Individual health vs. Community Health
  - e. Goal and objectives of Community Medicine
  - f. Clinical medicine vs. Community Medicine
  - g. Scope of Community Medicine
    - Community Health
    - Iceberg phenomena and hidden cases in Community
    - Community Health Problems and managing them
  - h. Roles and Functions of Community Physician
  - i. Contribution of Community Medicine in Improving People's Health: (Overviews)
    - Increase in longevity.
    - Reduction in morbidities and mortalities : Childhood, Maternal, Infectious diseases.
    - Control of great pandemics : Plague, Cholera, Flu
    - Eradication of the Small pox, Guinea worm, Polio eradication drive etc

### Section One

#### Health and related Basic Sciences

2. Health and Disease
  - Concept of Health :
    - Biological to Holistic health
    - Definition of Health
    - Dimension of Health
    - Spectrum of health.
    - Biological, nutritional, Behavioural, Environmental, socio-economical determinants, Health care services.
  - Diseases
    - Concept, disease
    - Epidemiological triad,
    - Risk factors /Determinants
    - Causation of disease,

- Natural history of disease
- Occurrence of disease.
- Infectious diseases : Types, germ theory , incubation period
- Non Infectious disease.
  - Web of Causations, Latent period
- Nutritional disorders
- Natural history of diseases : Pre pathogenesis and Pathogenesis phase
- Concept of Disability
- Application in Health Care:
  - Individual care and Community care

### 3. Nutrition and Health

- a. Concept, definitions
- b. Role of nutrition in health : Nutrients & Health
  - Functions, Sources, daily requirement and deficiencies
- c. Classification of foods
- d. Foods and its nutritive values
- e. Food Quality
  - Good quality protein, NPU
  - Glycemic Index
  - Fat : Saturated and unsaturated.
- f. Balanced Diet, Dietary goals and Diet Pyramid
- g. Healthy and Unhealthy foods/Junk foods
- h. Dietary & Cooking habits
- i. Recommended Daily Allowances of key nutrients
- j. Requirement in special physiological conditions: pregnancy, Lactation, infant, young children etc.
- k. Food fortification, food supplementation
- l. Socio-cultural aspects of Nutrition
- m. Assessing Dietary Intakes
- n. Nutritional surveillance
- o. Application in health care
  - Nutritional deficiency disorders
  - Therapeutic dietetics

### 4. Physical Activity, Exercise and Health

- a. Concept
- b. Physical activity, exercise and relationship with health

- c. Types of Physical activities
  - d. Physical activities and calorie utilized.
  - e. Aerobic exercise
    - Concept, types
    - Cardio respiratory benefits
  - f. Anaerobic exercise
    - Isometric, isotonic
    - Effects on body
  - g. Stretch exercises and effects on body
  - h. Yoga and Health
    - Concept,
    - Effects on Physical health and mental Health
  - i. Application in Health care
    - Exercise For health promotion
    - Exercise for Disease prevention and
    - Exercise in special medical conditions
    - Exercises induced injuries
5. Sociology and Health
- a. Concept and its relationship with health
  - b. Medical Sociology
  - c. Social determinants and relationship with Health
    - Education
    - Poverty
    - Social status
    - Gender
    - War and civil disturbances
    - Social development
    - Other factors : Urbanization, Industrialization, Migration
  - d. Community, Society
  - e. Community : Concept, definition, classification
  - f. Social stratification : Social Status, Social class and health
  - g. Customs and cultures
    - Concept, definition
    - Relationship with health
  - h. Social Institutes, Socialization, and Role of social institutes in health
  - i. Family :
    - Definition, Types of family,

- Functions of family,
  - Role of family in health
  - Problem family
- j. Economics: concept and definition
- Per capita income : GDP, NNP, GNP, PPP
  - OOP Expenditure and catastrophic effect on family.
- k. Gender : Concept, definition
- l. Social problems, Social pathology
- m. Social support :
- Social security :
    1. Security mechanism
    2. Health Insurance :
  - Social welfare :
    1. Schemes
- n. Community Development and Health
- Concept of Community Development in Improvement of Health
- o. Application in health promotion
- Individual care and community care
6. Environment and health.
- a. Concept, Definition and Types
- b. Relationship between environment and health.
- c. Air : Importance in Health
- Introduction
  - Temperature,
    1. Thermal Comfort : Indices and zones
    2. Heat stress indices
    3. Effects of heat stress and its prevention
    4. Cold stress and its prevention
    5. Effects of cold stress and its prevention.
    6. Global warming and its effects on Health
  - Ventilation :
    1. Ventilation and Health
    2. Standards of Ventilation
    3. Types of ventilation
    4. Preventing ill ventilation : House, hospitals, Hall, Occupational situation
  - Atmospheric pressure and its effects on Health
    1. High altitude/Pressure : Effects and Prevention

## 2. Low altitude/Pressure : Effects and Prevention

- Humidity :
  1. Humidity
  2. Effects of Humidity on health
- Radiation :
  1. Sources & types
  2. Effects on health
  3. Prevention/Protection
- Air Pollution :
  1. Causes, effects on health,
  2. Prevention and control

### d. Safe water :

- Water and human life.
- Uses and Requirement
- Water and Health
- Drinking water : Safe and wholesome water.
- Source of water : Safe and unsafe sources.
- Access of safe water : Global and India
- Selecting safe source of water.
- Making water safe : Needs and methods
- Purification of water: Household level,
- Purification of water - Community level : small scale and large scale.
- Hardness of water and Health
- Problem : Global and India
- Removing hardness of water.
- Water quality criteria and standards.
  1. Acceptability Parameter, Microbiological Parameter, Chemical aspects Radiological aspects.
- Surveillance of Drinking Water Quality
- Water conservation (overview of various approaches only)
- Water Pollution :
  1. Causes, effects on health,
  2. Prevention and control

### e. Sanitation and safe disposal of waste

- Concept and relationship with health.
- Types of wastes
- Solid waste management



- Excreta disposal : Community Health Importance
  - Problem in India : Open defecation and sanitary disposal.
  - Methods of Sanitary disposal.
  - Managing sanitation during special situation : Fair, camp etc.
- f. Noise : Concept
- Sound level & Loudness
  - Sources of Noise
  - Effects on Health
  - Acceptable/Permissible level
  - Prevention and control
- g. Housing – surrounding and health
- Role of housing and its surrounding in Health
  - Criteria for healthful housing
  - Overcrowding
  - Problem : Global and India
- h. Medical Entomology
- i. Arthropods of Medical Importance
- Arthropods borne diseases
  - Characteristics of Arthropod
  - Prevention and Control of Arthropods
  - Mosquito
    1. General description
    2. Life cycle of Mosquito
    3. Classification and characteristics
    4. Diseases transmitted by Mosquito
    5. Application in Diseases prevention
  - House Flies :
    1. General description
    2. Diseases transmitted by Houseflies
    3. Application in Diseases prevention
  - Sand flies
    1. General description
    2. Diseases transmitted by Sand flies
    3. Application in Diseases prevention
  - Fleas :
    1. General description
    2. Classification and characteristics

3. Diseases transmitted by fleas
  4. Application in Diseases prevention
  - Lice
    1. General description
    2. characteristics
    3. Diseases transmitted by lice
    4. Application in Diseases prevention
  - Ticks
    1. General description
    2. Classification and characteristics
    3. Diseases transmitted
    4. Prevention and Control
  - Integrated Vector Control :
    1. General Principles for Prevention and control of Arthropod diseases.
    2. Modern methods
  - j. Rodents :
    - Diseases transmitted by
    - Application in Diseases prevention
  - k. Environmental Health and Role of Health sector
7. Demography and census
- a. Demography : Concept, definition
  - b. Population and Health
  - c. World Population Trends
  - d. Demographic Cycle
  - e. Age pyramid
  - f. Age and sex composition
  - g. Sex ratio : Definition, current status, factors
  - h. Demographic Indicators
  - i. Demographic trend in India
  - j. Census : Process and findings
  - k. Application in Health care
8. Health Communication
- Concepts, definition
  - Need of communication in health care.
  - Model of Communication (Communication Process)
  - Information, Education and Communication
  - Learning : Concept, definition, Domain of learning, Process of learning

- Behavior : Process of behavior formation
  - Habits and Attitudes
  - Factors influencing behavior and attitude : Intelligence, Emotions, regulations
  - Personality : Components, traits and development of personality
  - Principles of health communications.
  - Types of Communications
  - Methods of Health Communication
  - Barriers to communication
  - Health communication and Propaganda
  - Application in health care
    - Awareness, Education, Counseling, BCC,
    - Advocacy, Social Mobilization and
    - Demand generation for services.
9. Research Methodologies and Biostatistics
- Concept, definition
  - Research in Health and medical care.
  - Types of research : Basic research, Applied research etc.
  - Research Methods : quantitative and qualitative research
  - Quantitative research : Concept
  - Types and Scope
  - Sample size and Sampling techniques
  - Type of data : Qualitative & Quantitative
  - Data Collection : Source of data
  - Primary data, Secondary data
  - Methods of data collections
  - Data collection tools: types
  - Data analysis : Principles and techniques
  - Biostatistics : Concept, Definition
  - Various statistical tests and uses in health research
  - Presentation of data
    - Tabulation : Frequency table, cross tables.
    - Charts and Diagram :
      - Bar diagram : Simple, multiple, component
      - Histogram : frequency polygon, Line diagram,
      - Pie chart,
    - Pictogram

- Central tendency, measure of dispersion, Confidence Interval, Standard Error of Means and Proportions, parametric and non parametric test, Tests of significance, (Z-test, T-test, Chi square, ANOVA test), correlation and regression (Concepts, scope and interpretation only)
- Statistical Significance Versus Clinical Significance
- Righting research reports/articles :
  - IMRAD
- Qualitative Research
- Concept of Ethics in Human Research
- Use of research and biostatistics in Health care.
- Uses of Computer in Health Research.

Section : Two  
Community Health Sciences

1. History & important events in Community Health
  - a. Pandemics of Flu, plague, cholera, Great Briton smog,
  - b. Vaccination and Immunization
  - c. Formation of Public health Act
  - d. John Snow and Cholera
  - e. Discovery of Vitamin C
2. General Epidemiology :
  - a. Concept, definition,
  - b. Epidemiology and clinical medicine
  - c. Aim of Epidemiology
  - d. Community Health problem & Community Diagnosis:
    - i. Diseases of Public health importance
      1. Infectious, Non-infectious, Nutritional, other
    - ii. Vulnerable groups : Women, Pregnant Mother, Child, Workers, Geriatric etc.
  - e. Community Diagnosis : Concept and methods
    - i. Concept : Endemic, epidemic, pandemic
    - ii. Distribution of Diseases
    - iii. Time : short term, periodic, secular
    - iv. Place : urban-rural, National variation, international variation, local
    - v. Person : Age, sex, immunity status, behavior, ethnicity, migration, stress, personality etc.
    - vi. Epidemiological approaches in Community Diagnosis
      1. Epidemiological Studies (Conceptual understanding)
3. Epidemiological studies
  - a. Epidemiological studies
  - b. Concept, types :
    - i. Observation studies :
      1. Descriptive studies
        - a. Case report, case series, and
        - b. Ecological studies : Concept, methods and uses.
        - c. Cross sectional and longitudinal studies
        - d. Procedures for descriptive studies
        - e. Uses
      2. Analytical : Concept
        - a. Cross sectional studies : Concept,
          - i. Steps, uses, advantages and disadvantages.

- b. Case control studies : Concept
      - i. Design, Steps, uses, advantages and disadvantages.
    - c. Cohort studies : Concept
      - i. Types, Designs, Steps, uses, advantages and disadvantages.
  - 3. Experimental studies
    - a. Concept
      - i. Types, uses, advantages and disadvantages
    - b. Community Trial : Concept and uses
    - c. Interventional studies
    - d. Phases of drug trials
  - c. Association and Causation
  - d. Systematic review and Meta analysis
  - e. Use of research in evidence generation : Evidence Pyramid
  - f. Applications in health care
- 4. Epidemiology of Infectious diseases
  - a. Epidemiological triad
  - b. Dynamics of Disease Transmission
    - Concept, Rationally to learn dynamics of disease transmission
      - Definitions, Chain of Transmission :
      - Source and reservoirs : Human( period of communicability), Animal and non-living reservoir
      - Mode of Transmission : Direct, Indirect
      - Host : Susceptibility and Defense.
      - Airborne
      - Vehicle borne : waterborne, food borne, Blood borne,
      - Vector borne
      - Contact transmission : Sexually transmitted diseases,
      - Zoonotic disease,
    - Some definitions and term in infectious diseases epidemiology
      - Outbreak, endemic, epidemic, pandemic,
    - Application in Prevention and control of diseases.
- 5. Preventive Medicine : Prevention of Infectious diseases
  - a. Epidemic prone disease
  - b. Prevention : Types, Modes of intervention and approaches
  - c. Concept of iceberg of diseases
  - d. Control : Concept, definition & level
  - e. Level of Control – Control, elimination, eradication

- f. Controlling : Level of interventions
- g. Approaches for Prevention and control
  - i. Source reduction and controlling reservoirs
    - 1. Early diagnosis & Prompt Treatment :
      - a. Notification,
      - b. Screening
      - c. Surveillance
      - d. Isolation
      - e. Quarantine
    - 2. Interruption of Transmission :
      - a. Environmental Health Management
      - b. Disinfecting infective agents
    - 3. Protecting Susceptible host :
      - a. Health behavior and promotion
      - b. Specific Protection
      - c. Immunization
        - i. History
        - ii. Types of Immunization : Active, Passive
        - iii. Immunization (different ages and situation)
        - iv. Herd Immunity
        - v. Immunizing agents & Milestones

6. Systemic epidemiology :

1. Epidemiology of Infectious Diseases:

a. General epidemiology of Infectious diseases

General Approach for each disease

- i. Introduction
- ii. Characteristic of disease
- iii. Problem statement : Global, India
- iv. Epidemiology
  - 1. Host : Age, sex, ethnicity, immunity, behavior, occupation etc.
  - 2. Agent : Types, strain, viability in different environmental conditions, effects of various disinfects.
  - 3. Environmental factors : Physical – Temperature, rain, humidity, seasons, sanitation, safe drinking water Social : Overcrowding, poverty, urbanization, migration etc.
- v. Source/Reservoir of Infection, infective material, portal of exit, mode of transmission, portal of entry
- vi. Incubation Period
- vii. Period of Communicability
- viii. Clinical features, Diagnosis and Treatment

- ix. Prevention and Control Measures
  - 1. Interrupting the transmission :
    - a. Source/reservoir reduction
    - b. Early identification
- x. Current approaches in health care services in India.
  - 1. Health Programs, Schemes, goals etc.
  - 2. Global approach, Goals, targets,
- a. Airborne diseases
  - xi. Different Types : Viral, bacterial
    - 1. Acute Respiratory Infection
    - 2. Smallpox & Chickenpox
    - 3. Measles,
    - 4. Mumps,
    - 5. Rubella
    - 6. Influenza : Seasonal flue, SARS, Avian flue etc.
    - 7. Tuberculosis
    - 8. Diphtheria
    - 9. Whooping Cough (Pertussis)
    - 10. Meningococcal Meningitis
- a. Water borne disease
  - i. Acute Diarrheal Disease
  - ii. Poliomyelitis
  - iii. Viral Hepatitis (A & D)
  - iv. Cholera
  - v. Typhoid
  - vi. Prevention and Control of Waterborne diseases
  - vii. Current Approaches in Health care in India
- b. Food borne Infection
  - i. Food Poisoning
  - ii. Typhoid
  - iii. Human Salmoniasis
  - iv. Prevention and Control of Food borne diseases
    - 1. Food Hygiene : (Farm to fork)
    - 2. Handling foods, hand wash
    - 3. Kitchen hygiene
    - 4. Storing foods : Raw foods, cooked foods
    - 5. Milk/ Meat hygiene,
    - 6. Food Safety : Sanitation at eating places, Adulteration
    - 7. Food handlers health,



- 8. Food sales and precautions
- v. Current approaches in health care services in India.
  - 1. Food safety and standards
  - 2. Standards for Restaurant sanitation
  - 3. Standard for Slaughter house
- c. Vector borne disease
  - i. Malaria
  - ii. Dengue
  - iii. Japanese Encephalitis
  - iv. Lymphatic filariasis
  - v. Chikungunya
  - vi. Yellow fever
  - vii. Leishmaniasis-Kalaazar
- d. Blood borne disease Repetition
  - i. Hepatitis B & C
  - ii. HIV
  - iii. Measures for Prevention and Control
    - 1. Voluntary Donation
    - 2. Blood Bank : Testing Blood units, Blood bank licensing
    - 3.
- e. Contact Diseases/Surface Infection
  - i. Reproductive/Sexually Transmitted Diseases
    - 1. HIV
    - 2. Other Sexually Transmitted disease
    - 3. Syndromic Approach
  - ii. Leprosy
  - iii. Trachoma
- f. Soil transmitted Helminthes
  - i. Ascariasis : Hookworm, Whipworm
  - ii. Dracunculiasis
  - iii. Tetanus
- g. Zoonotic disease
  - i. Rabies
  - ii. Crimean Congo Hemorrhagic Fever
  - iii. Plague
  - iv. Leptospirosis
- h. Epidemic Prone diseases
  - a. Types of Epidemics

- b. Outbreak Investigation & Prevention and control
- c. Emerging and reemerging diseases
  - a. Concept and overview
  - b. E.g.
    - i. Vector borne – KFD , Zika virus
    - ii. Zoonotic – Ebola, Corrona, Glanders

## 7. General epidemiology Non Communicable Diseases

- a. Concept, definition
- b. Magnitude of Problem
- c. Risk factors
- d. Integrated Preventive Measures (For Hypertension, Cardio-vascular diseases, Cerebro-Vascular Accidents, Diabetes, Obesity)
  - i. Health Promotion (life style modification)
  - ii. Screening, Rehabilitation
  - iii. Global Action Plan
- b. Specific Epidemiology of some NCDs
  - e. Hypertension
    - i. Magnitude of Problem
    - ii. Risk factors
    - iii. Preventive Measures
  - f. Diabetes
    - i. Magnitude of Problem
    - ii. Risk factors
    - iii. Preventive Measures
  - g. Cardio-vascular Problem
    - i. Magnitude of Problem
    - ii. Risk factors
    - iii. Preventive Measures
  - h. Cancer
    - i. Magnitude of Problem
    - ii. Risk factors
    - iii. Preventive Measures
  - i. Stroke
    - i. Magnitude of Problem
    - ii. Risk factors
    - iii. Preventive Measures
  - j. Current/integrated approach in Health care in India

## 7. Maternal health

- i. Introduction : Need
- j. Epidemiology –maternal Health problems
  - i. Magnitude
  - ii. Factors : Biological(Medical), Social, Health care related,
  - iii. Prevention and control of Maternal Morbidities and Mortalities.
- k. Preventive & Community Obstetrics : (Institutional and community care)
  - i. ANC
  - ii. INC
  - iii. PNC
- l. Maternal Mortality :
  - i. Concept, Definitions
  - ii. Current status and Trends
  - iii. Factors/causes : Medical, Social, Health care service related
  - iv. Measures to prevent maternal deaths
- m. Current approaches in health care services in India

## 8. Child & Adolescent health

- a. Introduction : Need
- b. Epidemiology, child Health problems
  - i. Childhood morbidities
    - 1. Low-birth weight baby : Burden, factors, Prevention & Control
    - 2. Childhood Infections : Burden, factors, Prevention & Control
    - 3. Malnutrition : Burden, factors, Prevention & Control
    - 4. Deficiencies : Burden, factors, Prevention & Control
    - 5. Disability & Deformity : Burden, factors, Prevention & Control
    - 6. Delayed Milestones : Burden, factors, Prevention & Control
- c. Preventive & Community Pediatric : (Institutional and community care)
  - i. Newborn care :
  - ii. Neonatal care
  - iii. Infant, Young, Child Feeding
  - iv. Well Baby Clinic,
  - v. Monitoring Growth and development
  - vi. Childhood Immunization
  - vii. School Health
- d. Mortalities : newborn, neonatal, infant, under five mortality
  - i. Current status and Trend
  - ii. Factors : Medical, Social, Nutrition etc.

- iii. Measures : For prevention and Child hood mortalities
  - e. Current approaches in health care services
  - f. Adolescent Health
    - Need,
    - Growth and Development during Adolescence
    - Emotional and relationship
    - Adolescent Health problems
    - Nutrition : Anaemia,
    - Behavior problems : Depression, Addiction,
    - Health promotion in Adolescent
      - Health Education and counseling
      - Reproductive health
      - Menstrual Hygiene
      - Immunization during adolescent age
      - Adolescent Friendly Health Centre
      - Life Skill/Family Life education : Concept
    - Current approaches in health care services
  - g. Reproductive health and Family Welfare
    - i. Concept and relationship with health
    - ii. Fertility Indicators
    - iii. Family Planning and welfare
    - iv. Contraceptive methods
    - v. Efforts for population control in India
    - vi. Goals and targets for India
9. Epidemiology of Nutritional & Food related diseases
- a. Introduction :
  - b. Nutritional Health problems and its Prevention and control
    - i. Low birth : Definition, types, Magnitude of Problem, Factors, Prevention & Control
    - ii. Malnutrition : Definition, Magnitude of Problem, Classification, Factors, Prevention & Control
    - iii. Iron Deficiency : Magnitude of Problem, Factors, Prevention & Control
    - iv. Vitamin A Deficiency : Definition, classification, Magnitude of Problem, Factors, Prevention & Control
    - v. Iodine Deficiency : Magnitude of Problem, Factors, Prevention & Control
    - vi. Obesity : Magnitude of Problem, Classification, Factors, Prevention & Control
    - vii. Food-borne intoxications : Lathyrism, Epidemic dropsy

- c. Food additives & Food adulteration
- d. Current approaches in health care services :
  - i. Assessment of Community Nutritional Status :
    1. Clinical Examination
    2. Anthropometry
    3. Biochemical evaluation
    4. Functional assessment
    5. Dietary intake assessment
    6. Ecological studies.
  - ii. Nutritional Surveillance :
  - iii. Food Fortifications
  - iv. Food standards :
  - v. Legislation : PFA, FSSAI
  - vi. Nutritional related health programs

#### 10. Mental Health :

- i. Introduction
- ii. Characteristics of Mentally Healthy Person
- iii. Mental Health problems :
  - a. Magnitudes
  - b. Types
  - c. Common Mental Morbidities
  - d. Factors/Causes
- iv. Preventive & Community psychiatry.
  - a. Mental Health Promotion
  - b. Early diagnosis & Treatment
  - c. Rehabilitation
- v. Stress, Depression, Addiction and Suicide : Preventive Measures.
- vi. Current approaches in health care services.
  - a. Mental health related program and services.

#### 11. Geriatric Health :

- a. Introduction
- b. Need, definition
- c. Common Geriatric Health Problems
  - a. Biological
  - b. Psychological
  - c. Social
- d. Preventive & Community Geriatrics
  - a. Health Promotion : Healthy aging

- b. Early diagnosis and treatment
  - i. Screening
  - ii. Periodic Health Check up
- c. Rehabilitation
- d. Geriatric Health care centers
- e. Current approaches in health care services.
  - i. Geriatric health related programs and services.

## 12. Occupational Health :

- a. Introduction : Concept, need and scope
- b. Work force and health
  - i. Industrialization and Health
  - ii. Agriculture and health
  - iii. Other sectors : Service sectors -executives, computer,
- c. Occupational Environment & Health hazards
  - i. Physical agents and hazards
  - ii. Chemical agents and hazards
  - iii. Biological agents and hazards
  - iv. Mechanical agents and hazards
  - v. Psychosocial agents and hazards
- d. Occupational Diseases
  - i. Pneumoconiosis
  - ii. Occupational Dermatitis
  - iii. Occupational Cancers
  - iv. Occupational Injuries & Accidents
- e. Ergonomic
- f. Prevention and control of Occupational Morbidities and Mortalities
  - i. Healthy Workplace Concept
  - ii. Medical Measures
  - iii. Engineering Measures
  - iv. Legislation
- g. Current approaches in health care services.
  - i. Legislation : Factory act, Workman's Compensation act, Maternity benefit act etc.
  - ii. Occupation health related programs and services : ESIS, CGHS

## 13 Special topics

- a. Blindness
  - i. Magnitude of Problem
  - ii. Risk factors
  - iii. Preventive Measures
- b. Travelers Health :
  - a. Concept
  - b. Risk
  - c. Preventive Measures
  - d. IHR
- c. Disaster Management :
  - a. Concept, Definition
  - b. Disaster and Community Health
  - c. Disaster Cycle
  - d. Types of Disasters & impact on Health
  - e. Preventing the Health impacts in Disaster Management
- d. Injury-Accidents
  - a. Definition,
  - b. Magnitude of Problem
  - c. Road, Domestic and Industrial accident
  - d. Haddon's matrix,
  - e. Safety audit,
  - f. Injury surveillance, trauma registry
  - g. Factor contributing Road accidents
  - h. Prevention and role of health sector
- e. Prevention of Hospital Acquired Infection
  - a. Concept, Definition
  - b. Disinfection
  - c. Surveillance
  - d. Preventive Measures
- f. Hospital waste management
  - a. Concept,
  - b. Risk to health
  - c. Managing the Hospital Wastes
  - d. Current Approaches in India
- g. Genetic health /Genetics
  - a. Genetic diseases as a community health problems
  - b. Prevention of genetic diseases

- i. Primary Prevention : Health Promotion & Specific Protection Measures
  - ii. Secondary Prevention : Screening-Early diagnosis & treatment
  - iii. Gene Related hemoglobinopathies: Sickle Cell anemia, Thalassaemia, Hemophilia
- h. Climate change and its effects on health

14. Great achievements in Community Medicine :

- Increase in longevity.
- Reduction in morbidities and mortalities : Childhood, Maternal, Infectious diseases.
- Control of great pandemics : Plague, Cholera, Flu
- Eradication of the Small pox, Guinea worm, Polio eradication drive etc



Section:- III  
Community Health Care

1. Community Health :
  - a. Concept, Definition
  - b. Right to health
  - c. Responsibility for health : Individual, Family, Community, State(Government), International
  - d. Measuring Community Health : concept and purpose
  - e. Tools of measurement
    - i. Concept :
    - ii. Rate, Ratio, Proportion,
  - f. Indicators for Community Health :
    - i. Directly health related Indicators:
      1. Measuring morbidity : Incidence, Prevalence, Disability
      2. Measuring mortality : Crude death rate, Case fatality rate, specific death rate, proportional mortality rate, survival rate
      3. Adjusted or standardized rates,
    - ii. Socio-economical indicators
      1. People living Below Poverty Line
      2. House with toilets
      3. Villages with safe drinking water
      4. Literacy Level
    - iii. Health service related indicators
      1. Health centre : Population, Doctor : Population ration, Nurse : Population ratio, Bed : Population ratio
      2. Service Utilization rate
      3. Bed Occupancy rate
      4. Health financing, Out of Pocket expenditure
    - iv. Overall Health status indicators : Longevity, , Standards of Living, level of living, quality of life, Physical quality of life, DALY, HALE, DFLE
    - v. Human Development Index.
  - g. Community Health Profiling
  - h. Global and Indian Health situation
  - i. Global and Indian Health Goals
  - j. International Classification of Diseases
  - k. Glossary : Different health indicators

2. Managing Community Health
  - a. History & evolution of health care (hygiene to SDG)
  - b. Sanitation awakening, public health,
  - c. Primary health care (HFA)
    - i. Concept, History, Definition
    - ii. Principles of PHC
    - iii. Basic elements of PHC
  - d. Universal Health Coverage
  - e. Recent Approach : Development and Health (MDG, SDG)
3. Health Care Delivery system
  - a. Health system : structure, functions
    - i. Management Model
    - ii. Health System Strengthening : WHO Model
  - b. Types of health care system
    - i. Classification : Private, Public, Mix
    - ii. Indian Health care system
    - iii. U.S./ Canada/U.K, South Africa ,China
  - c. Health Human resource
    - i. Health professionals: Doctors, Nurses, Technicians etc.
    - ii. Norm for various health professional & current status
    - iii. Issues with health human resource
  - d. Health Financing
    - i. Current situation and its relationship with health
    - ii. Norm
4. Health care Agencies
  - a. Government
  - b. International Agencies
  - c. Bilateral Agencies
  - d. Donor Agencies
  - e. Voluntary Agencies
5. Indian Health Care System
  - a. Health in Constitution
  - b. Evolution of Indian Health care system (History)
  - c. Health planning
    - i. Committees,
    - ii. Five year plans
  - d. Health policy:
    - i. National Health Policies

- ii. National Population Policy
      - iii. Other health related policies
    - e. National Health Goals
    - f. Different Health care delivery system (Government, Private, Volunteer)
    - g. Government Health Care System
      - i. General Health state :
        - 1. Three tier
          - ii. Central
          - iii. Railway
          - iv. Defense,
          - v. Employment State Insurance
          - vi. Local Self Government (Panchayat)
    - h. Structure : National, State, District/urban & Local Self Government
    - i. Functions : National, State, District/urban & Local Self Government
    - j. Three tire health care
      - i. Sub Centre : Concept, Norms, Structure, staffing and functions
      - ii. Primary Health Center/24x7 PHC : Concept, Norms, Structure, staffing and functions
      - iii. Community Health Center/FRU: Concept, Norms, Structure, staffing and functions
      - iv. District/Specialist Hospital: Concept, Norms, Structure, staffing and functions
    - k. Status of Health Care system in India
6. Health Programs in India.
  - a. Generic Template for each programs
    - i. Introduction: (need, history, milestones etc.)
    - ii. Goal :
    - iii. Objectives
    - iv. Strategies
    - v. Indicators/Targets
    - vi. Activities/implementations structure
    - vii. Current status of Implementation
    - viii. Critical Comments
  - b. National Health Programs/Schemes
    - i. National Health Mission NHM (NRHM, NUHM)
      - 1. RMNCH + A: Reproductive, Maternal, Newborn, Child and Adolescent Health
        - 1. Maternal Health

- a. ANC/INC/PNC
- b. Janani Shishu Suraksha Karyakaram
- c. Janani Suraksha Yojna
- 2. Child Health
  - a. Navjat shishu suraksha karyakram
  - b. Home based newborn care
  - c. Facility based new-born and child care
  - d. Integrated Management of Neonatal and Childhood Illnesses
    - Facility based IMNCI (F - IMNCI)
  - e. Rashtriya Bal Swasthya Karayakaram
  - f. Nutritional rehabilitation centres
  - g. Reduction in morbidity and mortality due to ARI and diarrhoea
  - h. Vitamin A Prophylaxis Program
  - i. Immunisation
    - i. Universal Immunization Program
    - ii. Vaccine Storage
    - iii. VHND
    - iv. AEFI
    - v. National/Subnational Immunization Day
    - vi. Mission Indradhanush
- 3. Adolescent Health (RKSK)
  - a. Adolescent friendly health clinics
  - b. National Iron Plus Initiatives
  - c. Weekly Iron and Folic acid supplementation (WIFS)
  - d. Menstrual Hygiene Scheme
- 4. Family Welfare
- 5. RTI/STI control Program
- ii. Diseases Control Program
  - 1. Communicable Disease
    - i. National Vector Borne Disease Control Programme (NVBDCP)
    - ii. Revised National TB Control Programme(RNTCP)
    - iii. National AIDS Control Programme
    - iv. National Leprosy Eradication Programme
    - v. Integrated Disease Surveillance Project (IDSP)
  - 2. Non-Communicable Diseases, Injury & Trauma
    - i. National Programme on Prevention and Control of Diabetes, CVD and Stroke
    - ii. National Programme for Prevention and Control of Deafness

- iii. National Cancer Control Programme
- iv. National Mental Health Programme
- v. National Programme for Control of Blindness
- vi. National Tobacco Control Program
- vii. National Programme for Health Care of the Elderly (NPHCE)
- viii. National Iodine Deficiency Disorder Control Programme
- ix. National Programme for Prevention and Control of Fluorosis (NPPCF)
- x. National Iron Deficiency Control Program

### iii. Nutritional Related Programs

- 1. Integrated Child Development Schemes
- 2. Mid-day meal program

## 7. Health Management

- a. Concept, Definitions
- b. Rationality
- c. Management Science :
  - i. Concepts, Definition
  - ii. Theories
  - iii. Principles
  - iv. Organizational Pyramid : Value, Vision, Mission
  - v. Goal, Objectives, Strategies, targets,
  - vi. Management Techniques.
    - 1. Classification
    - 2. Key management techniques
- d. Managerial functions
  - i. POSDCoRBE & Innovation
  - ii. Planning, Leading, Directing, Monitoring & Evaluation
- e. Levels of Management and their roles
- f. Health managers :
  - i. Level & Roles
  - ii. Functions and skills
  - iii. Health Manager as a leader
  - iv. Characteristics of effective health managers.
- g. Human Resource Management
  - i. Team building
  - ii. Motivating
  - iii. Conflict Management

- iv. Human resource development
- h. Logistic and Supply chain Management
  - i. Concept
  - ii. Inventory Management
    - 1. Indenting, Procurement,
    - 2. Planning for vaccines and drugs for health centre
    - 3. ABC-VED analysis
  - i. Finance management.
    - i. Concept
    - ii. Budgeting, Accounting and Auditing
  - j. Quality In Health Care :
    - i. Concept, Definition
    - ii. Dimension
    - iii. IPHS, NABH, NQAS etc.
- 8. Monitoring Indian health situation and health care
  - a. Health Information/bureau
  - b. Health Management information system
    - i. Record, registers, reports, HMIS
  - c. Special Surveys and Studies
    - i. Census
    - ii. SRS, CRS, NFHS,
    - iii. HSS, NMMB
    - iv. NMHS
    - v. Macroeconomics & Health Account
- 9. Health System Research
  - a. Baseline Survey
  - b. KAP studies
  - c. Monitoring and Evaluation of Health services/program
- 10. Use of Information Technology in Community Health care
  - a. ehealth & mHealth
    - i. Concepts, and Scope
  - b. Telemedicine and Community Health
  - c. Health care : Health education, Training, Monitoring, Epidemic Forecasting
  - d. Electronic Health Records (EHR)
  - e. Health Management Information System (HMIS)
    - i. RMNCH+
    - ii. CMIS in NACP
  - f. Reporting in Integrated Disease Surveillance Program

- g. Maternal Child Tracking System,
- h. DOTS 99 in RNTCP
- i. Nischay in RNTCP

11. Health Legislations :

- a. Introduction (need)
- b. Scope of Law
- c. Clause (features)
  - 1. Laws (Directly related with Healthcare)
    - 1. Public Health act
    - 2. COTPA
    - 3. PCPNDT
    - 4. MTP Act
    - 5. BMW-1986
    - 6. PFA/FSSAI
    - 7. ESIS & Factory Act
  - a. Laws (related with Health determinants)
    - 1. Pollution Control

## Annexure

- a. Indian Health Profile
- b. Milestones in Community Health In India
- c. Milestones in Immunization
- d. Immunization Schedule
- e. State wise
  - i. Population : Total, Male, Female
  - ii. Vital event : Birth rate, Death rate
  - iii. Key Health Indicators IMR & MMR,
  - iv. Sex ratio
  - v. Malnourished Child
  - vi. Vector borne Diseases
  - vii. TB : Cases, Death
  - viii. HIV : Cases, Death
  - ix. Literacy rate
  - x. Safe drinking water
  - xi. Sanitation facility
  - xii. Urban and Rural Population
  - xiii. Total, SC/ST population
  - xiv. Villages with road connectivity
  - xv. Health system PHC, CHC, DH/SDH, Medical Colleges and seats