A. Epidemiology, Statistics and Research

1. Epidemiology
   1.1. Definition and commonly accepted concepts, approaches, methods, incidence, prevalence, association and causation, disease prevention and control
   1.2. Aim and use of epidemiology
   1.3. Epidemiology of diseases (Infectious and non-communicable disease)
   1.4. Dynamics of disease transmission-source of reservoir, Mode of transmission susceptible host, immunity and immunizing agents.
   1.5. Investigation of an epidemic
   1.6. Screening of diseases
   1.7. Health Indicators.

2. Diseases Control
   2.1. Prevention and control of communicable and non-communicable disease.

3. Health Statistics
   3.1. Sources of health information; Health Management Information System.
   3.2. Tabulation graphic and diagrammatic representation of data.
   3.3. Statistical methods: averages, dispersion distribution, sampling and sampling size test significance, correlation and regression.

4. Demography
   4.1. National population policy
      4.1.1. Population trends – World and Nepal
      4.1.2. Measure of population dynamics
      4.1.3. Factors affecting fertility, mortality and migration
      4.1.4. Urbanization
      4.1.5. Life expectancy

5. Research Methodology
   5.1. Operational and health system research
   5.2. Research proposal development
   5.3. Literature review
   5.4. Objectives and hypothesis setting
   5.5. Priorities in health research
   5.6. Nepal Health Research Council
   5.7. Budgeting

B: Health Service Delivery

1. National Health Programs
   1.1. Epidemiology and Disease Control Programme: Malaria Tuberculosis, Leprosy, JE, Zoonosis, sexually Transmitted Diseases, HIV/AIDS etc.
   1.2. Reproductive Health- Safe motherhood, new borne care, family planning Adolescent reproductive health, safe abortion, care of elderly women, RTI/STD/HIV/DIS, infertility prevention and treatment.
1.3. Child health
   1.3.1. Care of the newborn; Integrated Management of childhood illness.
   1.3.2. Growth and development
   1.3.3. Care of the under fives
   1.3.4. Right of the child
   1.3.5. Management and control of child illness
   1.3.6. Immunization

1.4. Nutrition
   1.4.1. Food and nutrients with nutritional profiles
   1.4.2. Nutritional problems
   1.4.3. Nutritional factors in selected diseases
   1.4.4. Assessment of nutritional status
   1.4.5. Food toxication, additives, fortification
   1.4.6. Nutritional programs

2. Environmental Health
   2.1. Internal and external and ecological factors responsible for impairing health.
   2.2. Management and control of basic and fundamental environmental factors-
      2.2.1. Water, Air, Ventilation, Lighting, Noise, Housing
      2.2.2. Solid waste disposal and control
      2.2.3. Excreta disposal and control
   2.3. Medical entomology-mosquito, housefly, sand-fly, lice, fleas, bugs etc. control
   2.4. Insecticides-safe use and resistance
   2.5. Rodents control

3. Occupational Health
   3.1. Occupational Environment
   3.2. Occupational hazards
   3.3. Health problems due to industrialization
   3.4. Management, Prevention (medical, engineering and legislation) and control of
      3.4.1. Occupational diseases and conditions like Pneumoconiosis, lead poisoning, cancers,
      and dermatitis and radiation hazards
      3.4.2. Occupational hazards of agricultural workers
      3.4.3. Accidents in industries
      3.4.4. Measures for the general health protection of workers.

4. School health
   4.1. Curriculum, instruction and training
   4.2. Health school environment
   4.3. School community cooperation for better health

5. Essential Care Services (EHCS)
   5.1. EHCS at the district level and below
   5.2. Health care services beyond district level-tertiary and specialized care.

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