Gunineaworm Eradication Programme

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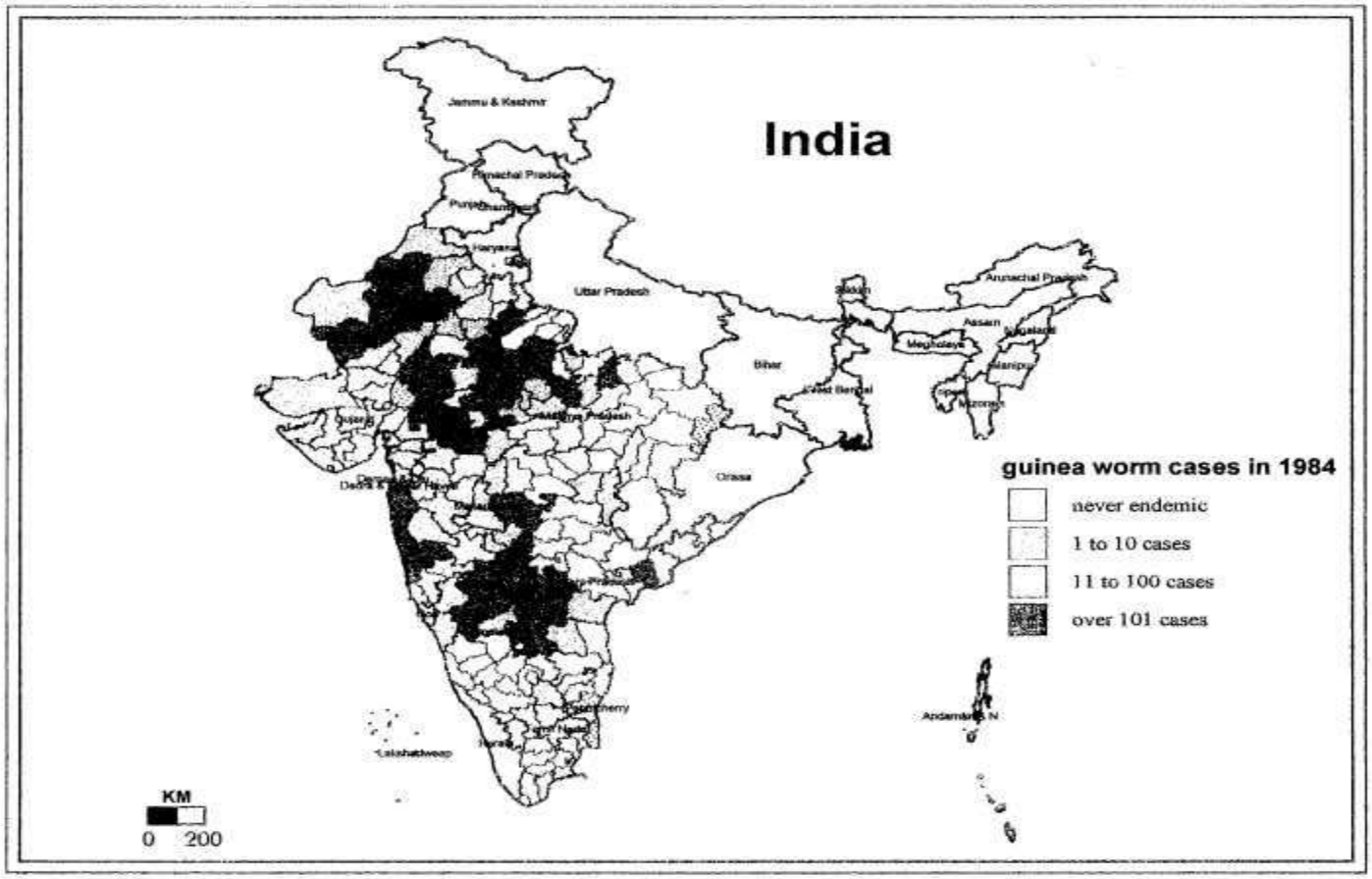
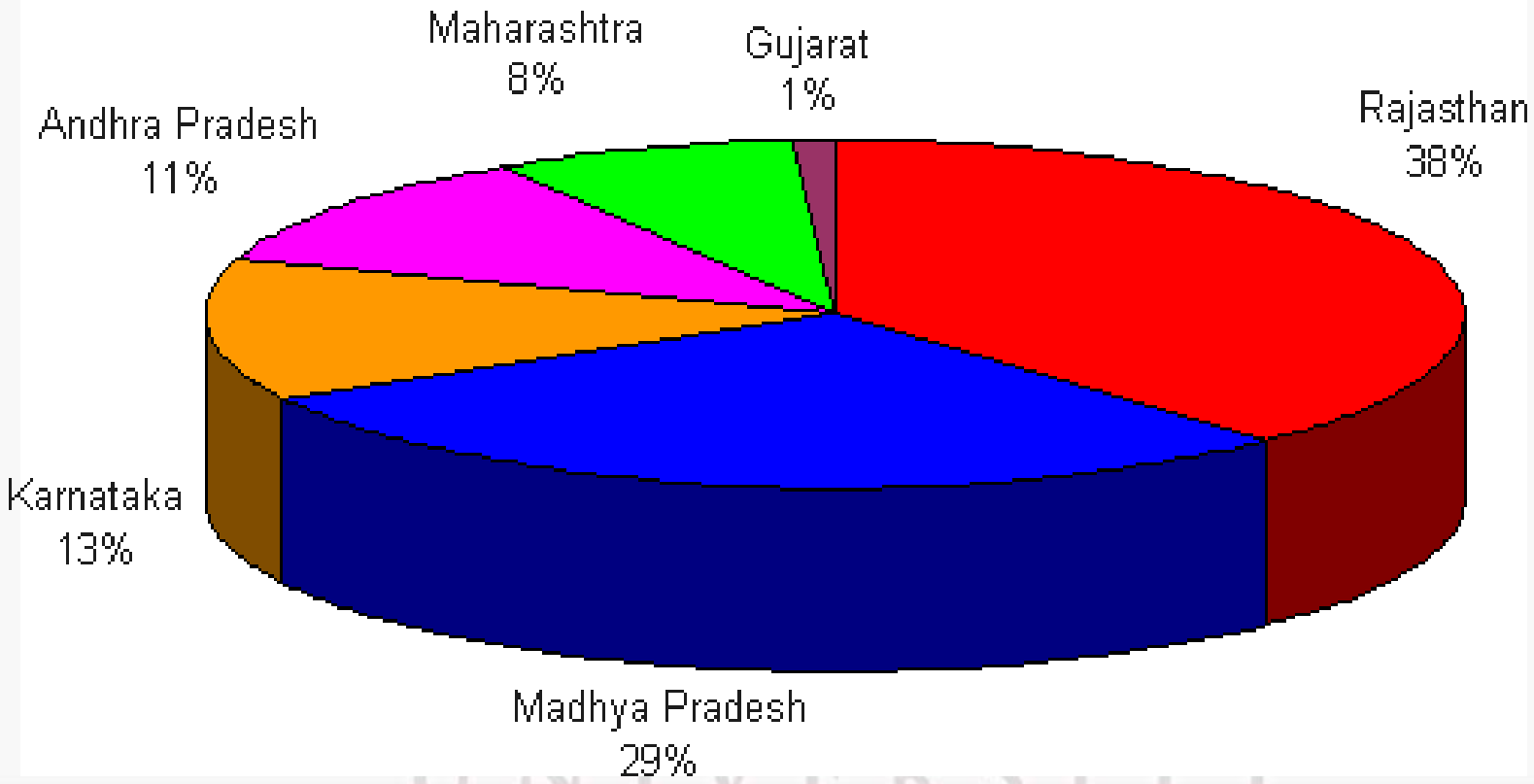
School of nursing

Course Code : BSCN 4002 Course Name : COMMUNIT HEALH NURSING

- **DRACUNCULIASIS**
- **Guinea Worm disease (Dracunculiasis) was an important public health problem in many states of India before it was eradicated in 2000. It is caused by a large nematode**


India
guinea worm cases in 1984
never endemic
1 to 10 cases
11 to 100 cases
over 101 cases
KM
0 200

Total GW Cases 39,792 in 1984



- **Dracunculosis or Guinea Worm (GW) disease is caused by the nematode Dracunculus medinensis.**
- **The adult female guinea worm, measuring 60-100 cm in length, emerges through the skin, usually lower limbs, causing swelling, ulceration and discomfort to the patients.**

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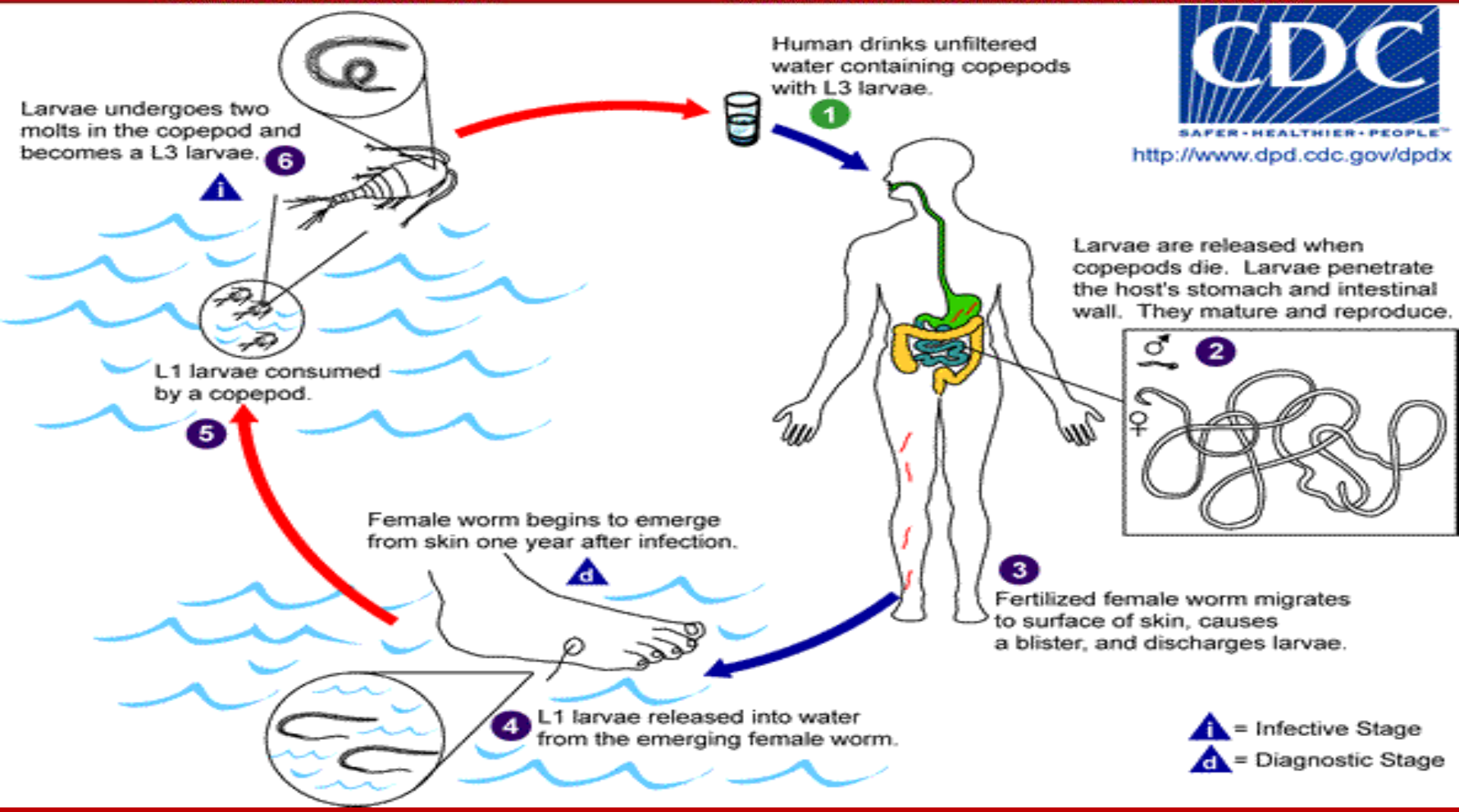

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- Dracunculus medinensis, which passes its life cycle in two hosts – Man and Cyclops. Man harbours the adult parasites in the subcutaneous tissues, especially of legs, arms and back, which are likely to come in contact with water.
- A blister appears on the skin when the gravid 60-100 cm long adult female worm is ready to discharge its larvae

- **The escape of larvae into the water takes place in batches and the parturition is usually complete in about 2-3 weeks.**
- **These larvae are ingested by Cyclops and develop into infective stage in about 2 weeks. People swallow the infected Cyclops in drinking water from step wells or ponds**

- The larvae are liberated in the stomach, cross the duodenal wall, and enter the retro-peritoneal connective tissues where they grow and mature.
- The males die after mating. The females migrate in about 6 months to parts which come in contact with water.

Multiple and repeated infection may occur in the same person. Diagnosis is made by visual recognition of adult worm protruding from a skin lesion or by microscopic identification of larvae.

- **Cases occur in areas which have natural or artificial ponds or step-wells as sources of drinking water.**
- **Chances of infection increase before the arrival of monsoon when the water level becomes low in ponds/wells.**

- **More cases occur in adults, especially males due to increased frequency of exposure**

- The prevention/control measures include making drinking water safe, not allowing villagers, especially those with blisters and ulcers, to enter any source of drinking water, filtering water in endemic areas through fine mesh (size 100 micrometers)
- to remove Cyclops, converting step wells to draw wells, controlling of Cyclops by use of temephos, and increasing awareness among endemic communities about the disease and its control.

GUINEA-WORM ERADICATION IN INDIA

- Government of India launched the National Guinea Worm Eradication Programme (GWEP) in 1983-84 as a centrally sponsored scheme on a 50:50 sharing basis between Centre and States with the objective of eradicating guinea worm disease from the country.

- The National Institute of Communicable Diseases (NICD), Delhi was designated as the nodal agency for planning, co-ordination, guidance and evaluation of GWEP in the country.
- The Programme was implemented by the endemic State Health Directorates through the Primary Health Care system

STRATEGY

- **Based on the life cycle of the worm and well defined prevention and control measures, Guinea Worm Eradication Programme envisaged the efficient implementation of strategies including**

REMOVING GW FROM ANKLE

EMERGENCE OF GW

- Guinea worm case detection and continuous surveillance through three active case search operations and regular monthly reporting
- GW case management
- Vector control by the application of Temephos (50% EC) in unsafe water sources eight times a year and use of fine nylon mesh/double layered cloth strainers by the community to filter cyclops in all the affected villages

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- Provision and maintenance of safe drinking water supply on priority in GW endemic villages
- Trained manpower development and
  - Intensive health education
  - Concurrent evaluation and operational research.

TOWARDS CERTIFICATION OF ERADICATION

- **A National Commission for Certification of Guinea Worm Eradication was set up by the Ministry of Health and Family Welfare.**

- The country completed three years of guinea worm disease free period in July 1999. Subsequently, International Certification Team (ICT) from International Commission for Certification of Dracunculiasis Eradication (ICCDE),
- WHO visited India from 9th -25th Nov., 1999 to assess the status of guinea worm disease in the country and to prepare a report for presentation to International Commission at Geneva.

- The International Certification Team, presented its report on guinea worm disease status in India to the ICCDE in the meeting held in 15 February 2000 in Geneva. On the basis of ICT report, India was declared as Guinea Worm disease free country in this meeting.

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THANK YOU