

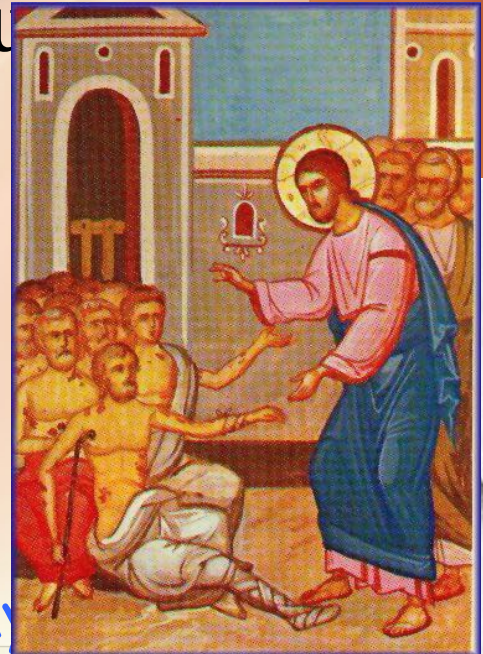


Leprosy

(Hansen's Disease)

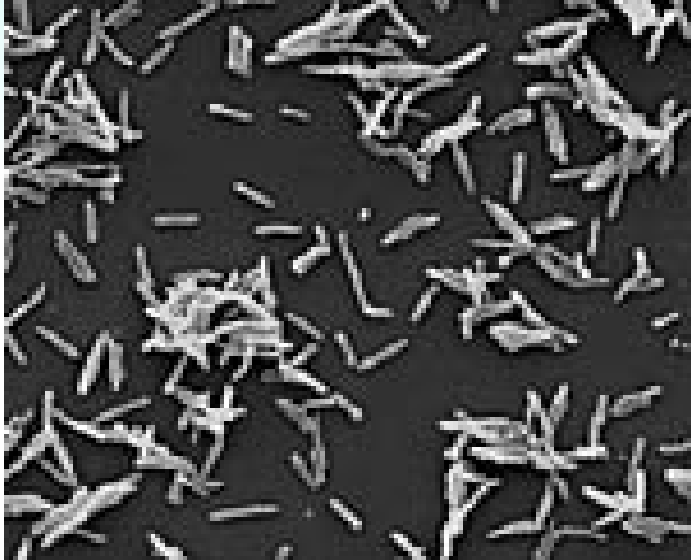
What is Leprosy?

- It is a chronic infectious disease
- characterized by lesions of the peripheral nerve, skin, and mucous membrane of the URT.
- World's oldest recorded disease
- Stigmatized disease



Every year January 27 is World Leprosy Day

What causes it?



- *Mycobacterium leprae*
- Rod Shaped
- First bacterium disease in humans

Natural host?



- **Humans**

- **Armadillos**
are only known natural hosts

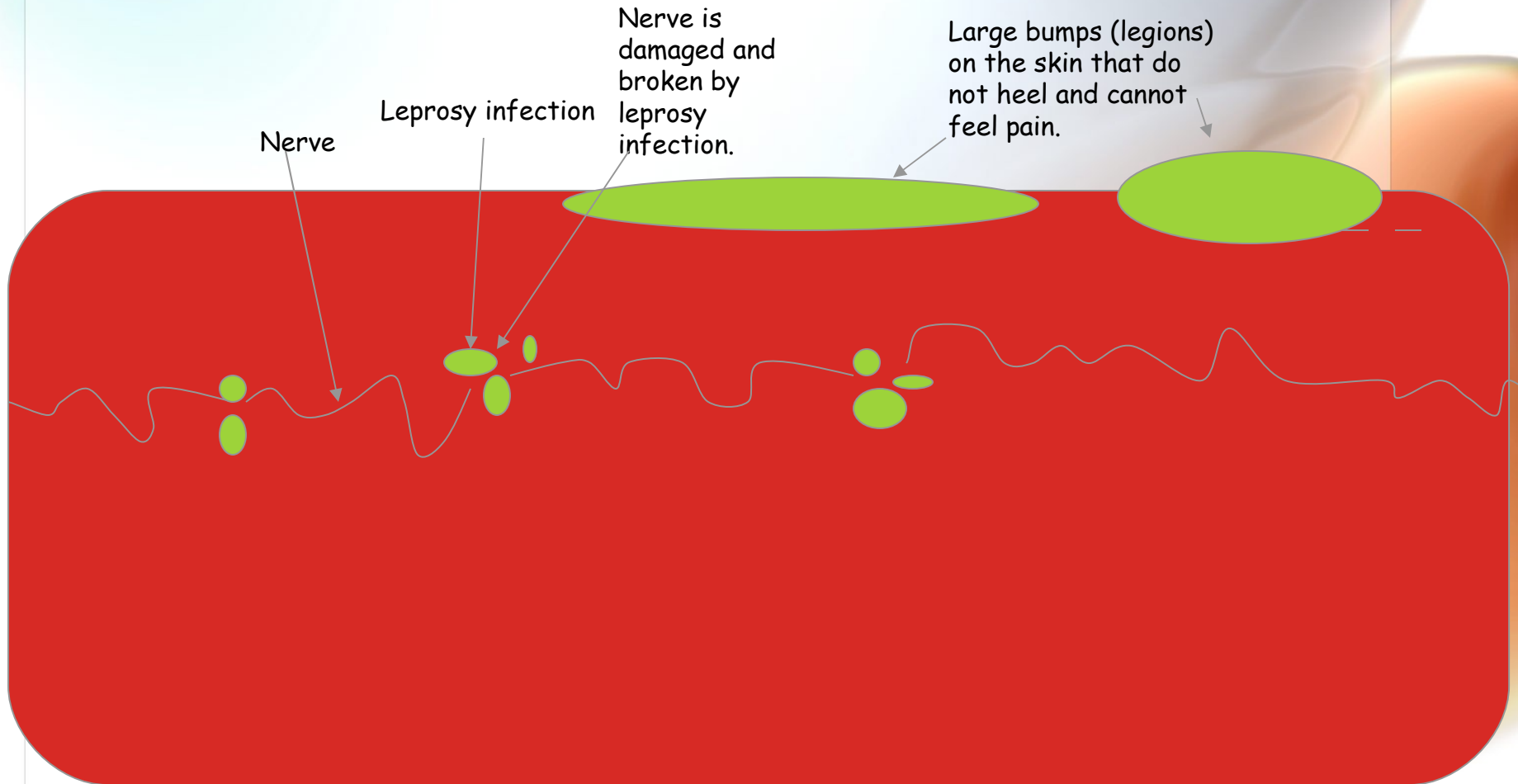
What are the types of leprosy?

- Lepromatous: damages respiration, eyes, and skin (**Paucibacillary Leprosy (PB)**)
- Tuberculoid: affects nerves in fingers and toes, and surrounding skin (**Multibacillary Leprosy (MB)**)
- Borderline: (**BL**) has effects of both types

What can leprosy do to people?

- Leprosy attacks the cooler areas of the body
- Leprosy destroys neurons in these areas, taking feeling away from them
- Leprosy also causes cartilage in those areas to get absorbed back into the body, causing fingers, toes, ears and noses to disappear
- Leprosy also causes large bumps in the skin that do not feel pain and do not heal

How the human body is affected by Leprosy



Incubation Period

- *Mycobacterium leprare* multiplies very slowly
- Symptoms can take as long as 20 years to appear
- Development of disease take from months to years (1 year to 7 years)

Who is at risk?

- It can affect all ages and both sexes
- 95% of people who are exposed do not develop disease
- Mainly affects:
 - Skin
 - Eyes
 - The peripheral nerves
 - Mucosa of the upper respiratory tract

Who is at risk?



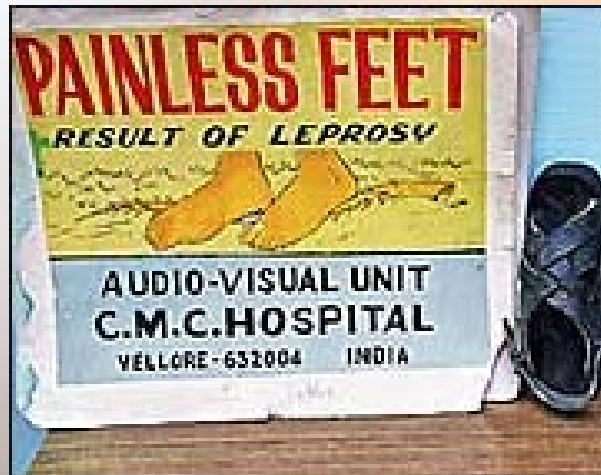
<http://microbes.historique.net/images/lep3.jpg>



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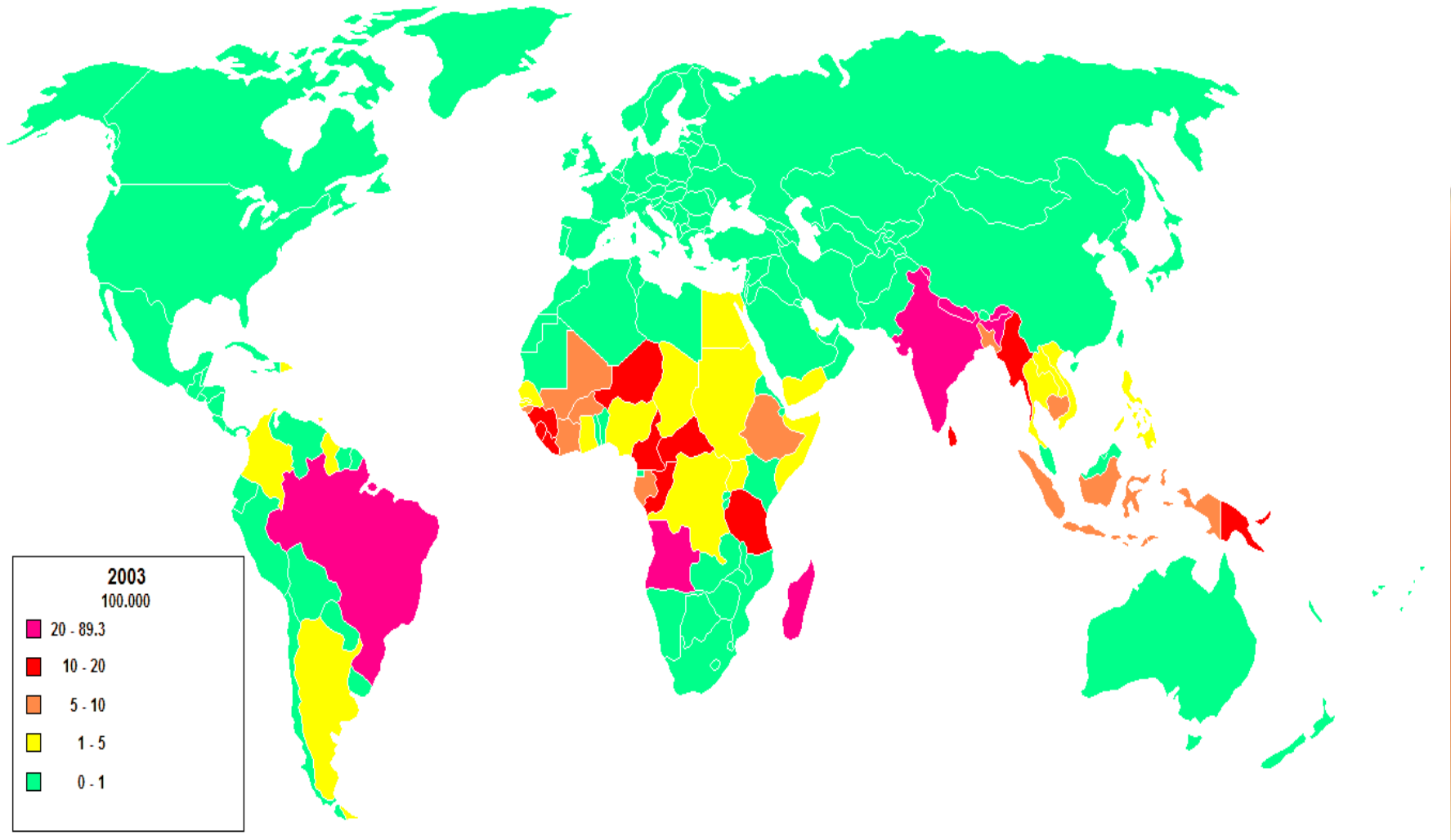


<http://www.leprosymission.org/web/pages/leprosy/images/girlwithleprosy.patch.jpg>



<http://www.leprosymission.org/web/pages/leprosy/leprosy.html>

Cases around the World



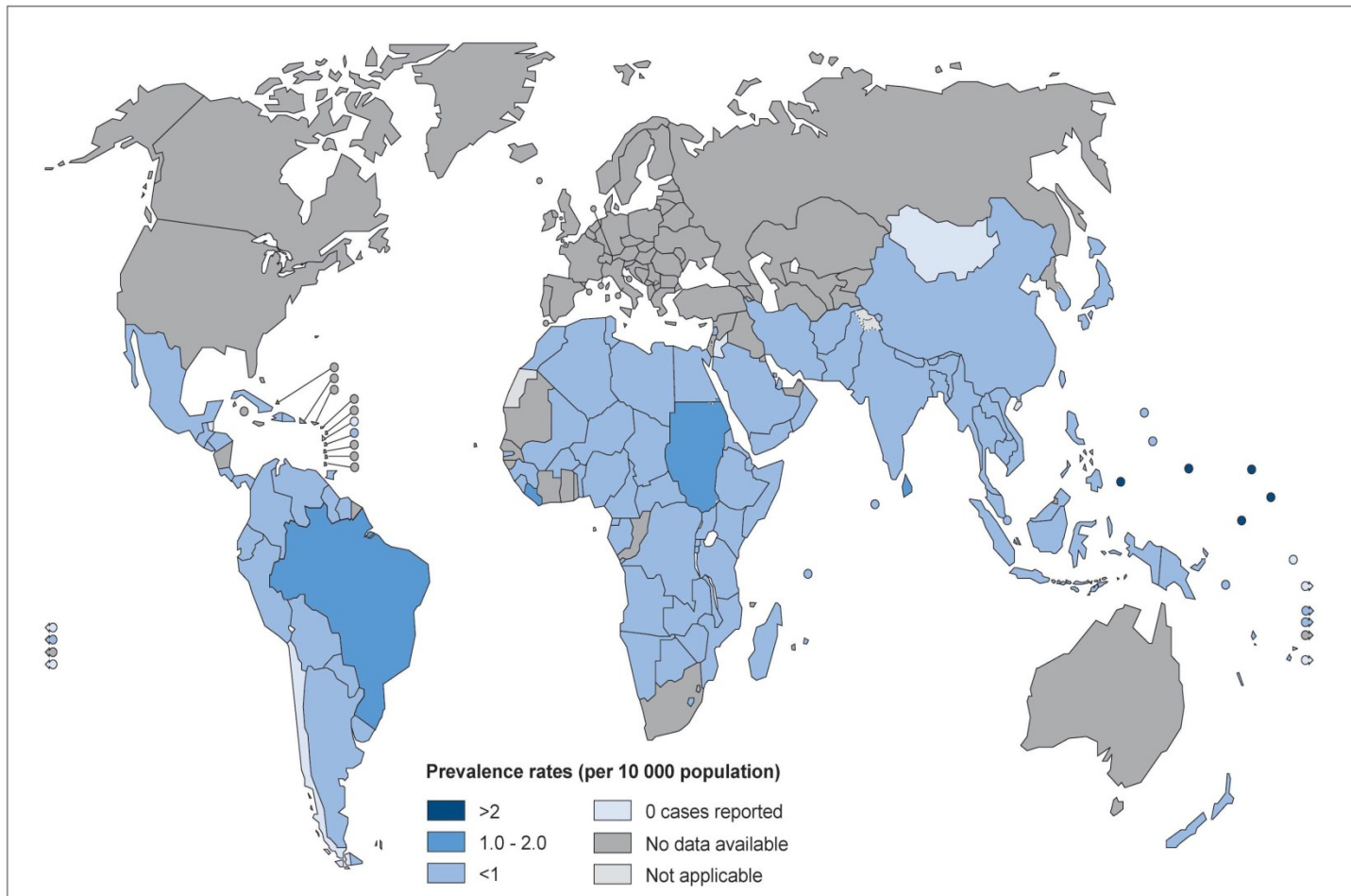
http://upload.wikimedia.org/wikipedia/commons/9/91/Lepra_2003.png

A 20% annual decrease in new cases detected globally since 2001

Decline in Leprosy cases 1985-1997



Leprosy prevalence rates, data reported to WHO as of beginning January 2011



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2011. All rights reserved

Data Source: World Health Organization
 Map Production: Control of Neglected
 Tropical Diseases (NTD)
 World Health Organization



DIAGNOSIS OF LEPROSY

- Hypopigmented or reddish skin lesion(s) with definite loss of sensation
- Damage to the peripheral nerves, as demonstrated by loss of sensation
- Weakness of the muscles of hands, feet or face
- Positive skin smear

What are the sings?

- Large bumps on the skin that do not feel pain
- Large bumps on the skin that do not heal for weeks or months
- Muscle weakness
- Disappearance of eyebrows or eyelashes





What are the symptoms?

- *Mycobacterium leprare* multiplies very slowly
- Symptoms can take as long as 20 years to appear
- **Paucibacillary** (PB) Leprosy symptoms are:
 - Well defined skin lesions that are numb
- **Multibacillary** (MB) Leprosy symptoms are:
 - Chronically stuffy nose and many skin lesions and nodules on both sides of the body

























How can you avoid getting leprosy?

- To avoid Contracting leprosy, avoid close contact with someone who has untreated leprosy

Goals of Prevention & Treatment

- Major goals of treatments are:
 1. Early detection of patients
 2. Appropriate treatment
 3. Adequate care for the prevention of disabilities and rehabilitation

Is there a cure?

- Yes! Leprosy is curable with MDT (multidrug therapy)
- Treatments include taking **Dapsone and Clofimine together**

Conclusion

- Fortunately, modern medicine has cured most of the world of Leprosy
- People with Leprosy are being more accepted by communities around the world
- Leprosy still Remains a problem in undeveloped countries
 - The World Health Organization is putting a stop to this
 - If they reach their goal, Leprosy should be eliminated from the world within 20 years

Questions

Leprosy?

(Hansen's Disease)

More

