

# Dimension

SECTION

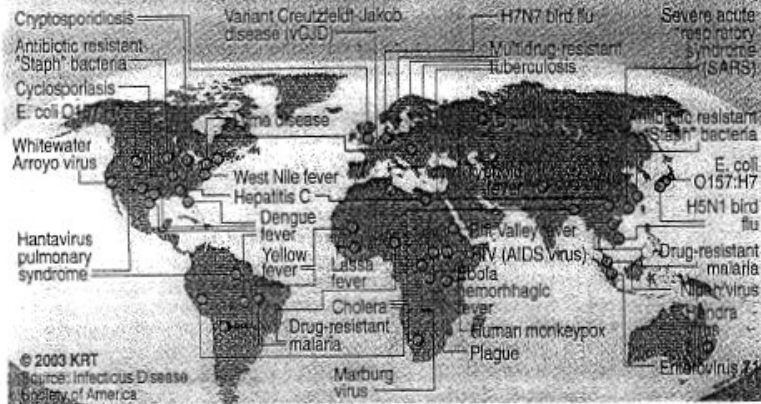


OPINION ..... 22A  
 OTHER VIEWS .. 23A

## New and re-emerging diseases

These are some of the more than 30 infectious diseases that have become new or re-emerged in the past 30 years.

Map locates origin of disease or serious outbreak



© 2003 KRT  
 Source: Infectious Disease Society of America

## Rash of new diseases plaguing modern world

### Outbreaks since '70s unprecedented

By Seth Borenstein  
 KNIGHT RIDDER

WASHINGTON — Get used to SARS, West Nile, hantavirus, Ebola, Nipah, Hendra, AIDS and other new nasty infectious diseases. Health experts say we're living in a new age of infections.

And we have mostly ourselves to blame.

The nation's top scientists say that environmental, economic, social and scientific changes have helped to trigger an unprecedented explosion of more than 35 new infectious diseases that have burst upon the world in the past 30 years. The U.S. death rate from infectious disease, which dropped in the first part of the 20th century and

then stabilized, is now double what it was in 1980.

SARS is only the latest of these new germs.

"The kinds of things we are doing for SARS we can anticipate we are going to do again and again," Centers for Disease Control and Prevention Director Dr. Julie Gerberding told the U.S. Senate's Health, Education, Labor and Pensions Committee last week.

See **DISEASE** on page 26A

## DISEASE

FROM PAGE 21A

"Today's outlook with regard to microbial threats to health is bleak," concludes a 396-page March report from the prestigious Institute of Medicine, a research arm of the federal government.

"This period from the 1970s is without precedent in the history

of the annals of medicine," Dr. Paul Epstein, associate director of Harvard Medical School's Center for Health and Global Environment.

To figure out why this is happening, the Institute of Medicine convened a panel of top U.S. researchers. They attributed the surge in new diseases to 13 specific changes in the world and the way we live.

Those 13 factors are microbial adaptation and change; human

SUNDAY, MAY 4, 2003 ■ THE GREENVILLE NEWS

susceptibility to infection; climate and weather; changing ecosystems; human demographics and behavior; economic development and land use; international travel and commerce; technology and industry; breakdown of public health measures; poverty and social inequality; war and famine; lack of political will; and bioterrorism.

Of the more than 35 new emerging diseases since the 1970s "a substantial proportion relate to man's manipulation of ecology," Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, said in an interview Thursday.

Most of these diseases live in animals; the epidemic begins

when they jump from animal to humans, typically because of close contact. That often follows the clearing of land for housing or industry.

When countries hide new outbreaks, as China did with SARS, or lack public health systems capable of detecting outbreaks, diseases spread faster, said Dr. Howard Markel, a professor of infectious diseases at the University of Michigan. Markel, who also teaches the history of medicine, is author of the forthcoming book "When Germs Travel."

Weather changes can be a factor in emerging diseases, too, experts said.

West Nile and hantavirus struck in the United States ?

severe droughts, Epstein said. That's because transfers of mosquito-borne diseases are easier when large numbers of animals congregate around small pools of water.

Once a disease takes hold these days, it tends to be globalized quickly by travel and trade.

West Nile, for example, is thought to have reached New York from its traditional home in the Middle East on an infected bird carried by a ship or plane. With SARS, doctors have been able to pinpoint tourists, businessmen and doctors who have taken the virus from Hong Kong to Hanoi, Singapore and Toronto. It set a record for speed of continent-to-continent transmission.

"It's amazing, it's scary," said Dr. Jim Diaz, professor of public health and preventive medicine at the Louisiana State University School of Medicine. "It just shows you that international travel can move things so fast."

Fortunately, the world's health systems are moving faster, too.

The CDC's Gerberding noted that within about a month scientists identified the SARS virus, something never seen before, and developed a crude diagnostic test for the disease.

The essential goal is to keep infections from getting out of control.

"We don't conquer germs," said Michigan's Markel. "We wrestle them to a draw."