Instituto Nacional de Salud Pública
Centro de Investigación Sobre Enfermedades Infecciosas

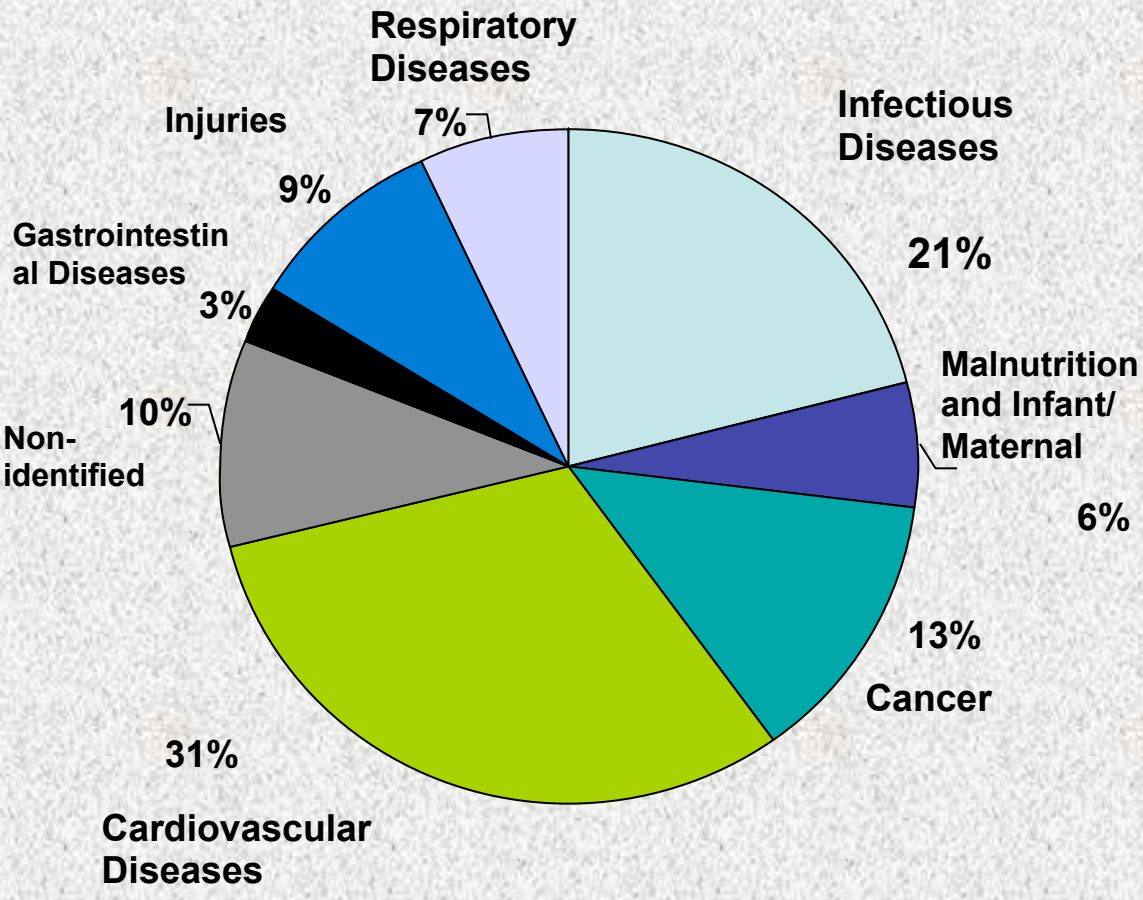
Center of Research on Infectious Diseases

(CISEI)

Content

1. Relevance of infectious diseases
2. Mission and vision
3. Human resources and infrastructure
4. Research

Global distribution of deaths, based on an estimate of 58,028,152 deceases in 2005.



90% caused by:

HIV/AIDS
Tuberculosis
Diarrhea
Malaria
Measles
Pneumonia

Source: http://www.who.int/healthinfo/statistics/en

CISEI

Mission and vision

- **Mission:**

  CISEI's mission is to contribute to decrease infectious diseases through research, technological innovation, human resource development and training and collaboration networking

- **Vision:**

  To become a regional center of excellence in research and training in infectious diseases of public health relevance, and innovative methodologies for epidemiological surveillance

Human resources

Research professors

Level A	5
Level B	15
Level C	8
Level D	12
Level E	2
Level F	3
Research assistants	3
Total	48

Sistema Nacional de Investigadores

Level III	3
Level II	6
Level I	23
Candidates	3
Total	35

Personnel

Research personnel	60
Administrative and technical support	54
Total	114

Infrastructure

- 11 Laboratories
- Sera and DNA bank

  Samples from the National Health Surveys (2000, 2006, 2012). Historical samples from 1988. (80,000 blood samples and 40 000 leucocyte membranes for DNA analysis)
- Influenza laboratory
- Small species and insect facility
- Genomics and proteomics unit
- Pyrosequencing area
- Quality assurance
- Maintenance and administrative support

Geographical extension: 874.94 m2
Built area: 1721.9 m2

Research Areas

1. Prevention and control of Vector Borne Diseases
2. Prevention and control of Cancer
3. Prevention of HIV/AIDS and other sexually transmitted infections
4. Prevention and control of Tuberculosis
5. Drugs in Public Health: Access, usage and resistance to antimicrobials.
6. Viral emergent diseases
7. Vaccines

Academic Programs

1. Master in Public Health with emphasis in Vaccines
2. Master in Public Health with emphasis in Infectious Diseases
3. Master in Sciences with emphasis in Infectious Diseases
4. Master in Sciences with emphasis in Vaccines
5. Doctorate in Sciences with emphasis in Infectious Diseases

Examples of Impact on Population Health and Public Policies

Prevention and control of Vector Borne Diseases

Strategies to control transmission of vector borne diseases

- **Effective and timely strategies of entomologic prevention that involve community, social, institutional and political involvement**

- **Comprehensive larvae control involving interventions that take into account the ecosystem and community participation**

Examples of Impact on Population Health and Public Policies

Prevención y control of cancer

- Local non-invasive therapy against cervical cancer :
  - Usage of a biodegradable polymer to release IL-12 in a murine VPH model
- Epidemiology of hepatitis C (cause of hepatic cirrhosis and liver cancer)
- Results will allow improvement of prevention and control policies

Examples of Impact on Population Health and Public Policies

Prevention and Control of TB

2000: Modifications to Official Regulations

Modification of treatment regime

Creation of state committees for management of drug resistance cases

Culture of specific cases

2004: Effectiveness of DOTS strategy to interrupt transmission of drug resistant TB

2004 Magnitude of the association of diabetes and TB

2012 Association of DM and TB: Impact on treatment outcomes

1995-2012 Role of community participation in TB research

Examples of Impact on Population Health and Public Policies

Vaccines

Evaluation of new routes of administration (aerosol) of measles vaccine

Evaluation of immunogenicity and safety of influenza vaccine component in pregnant women

Evaluation of persistence of oral poliovirus vaccine in the environment when used simultaneously with inactivated poliovirus vaccine