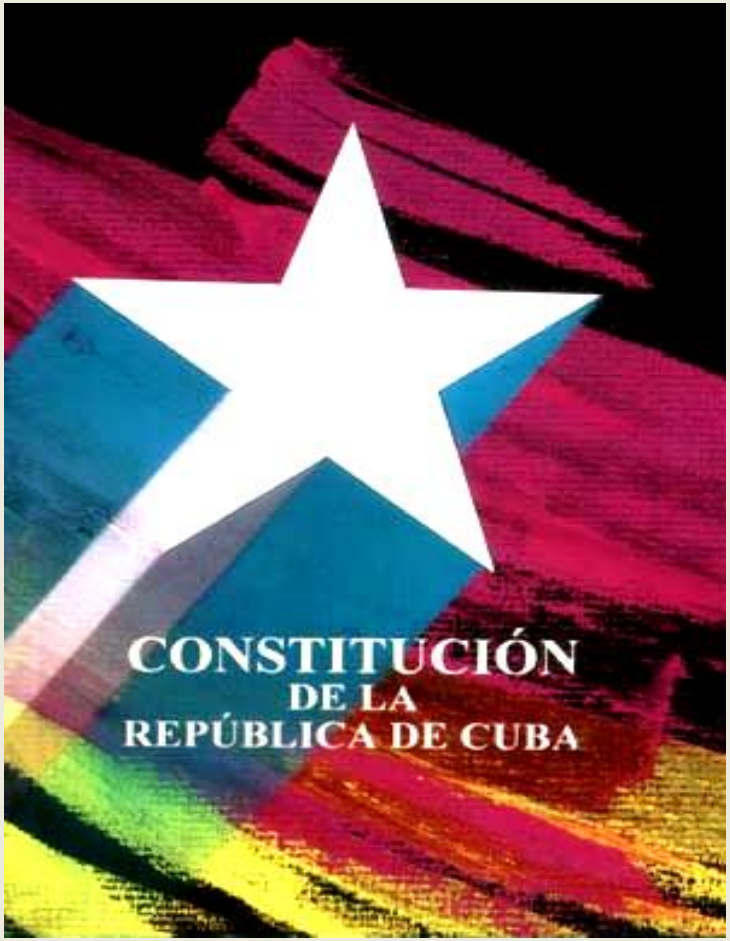
"Cuban National Health System".

May 2012

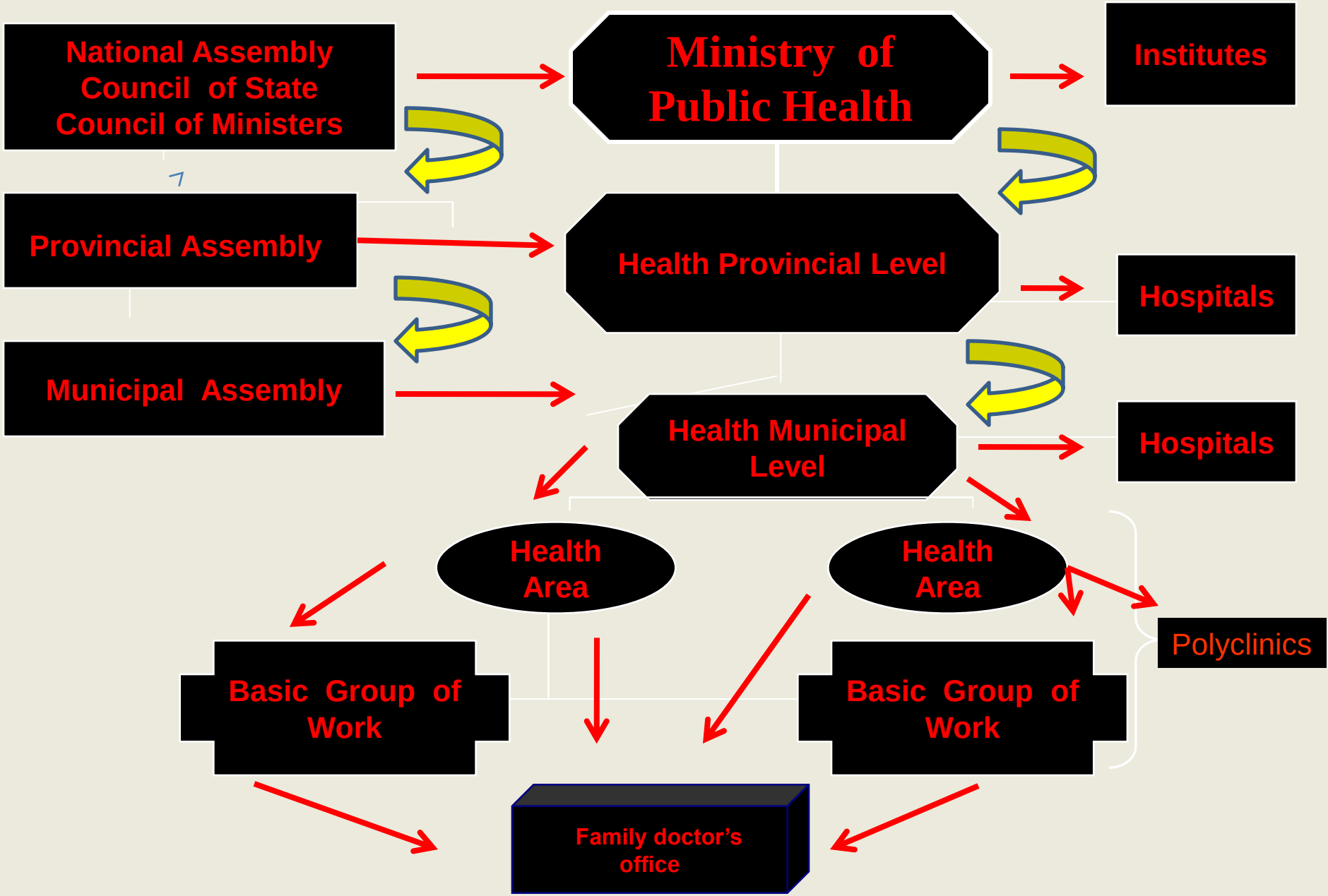
The humanistic and solidarity principles that characterize Cuban Public Health are endorsed by the Constitution of the Republic of Cuba



Article 50

Everyone has the right to receive health care and protection. The state guarantees this right.

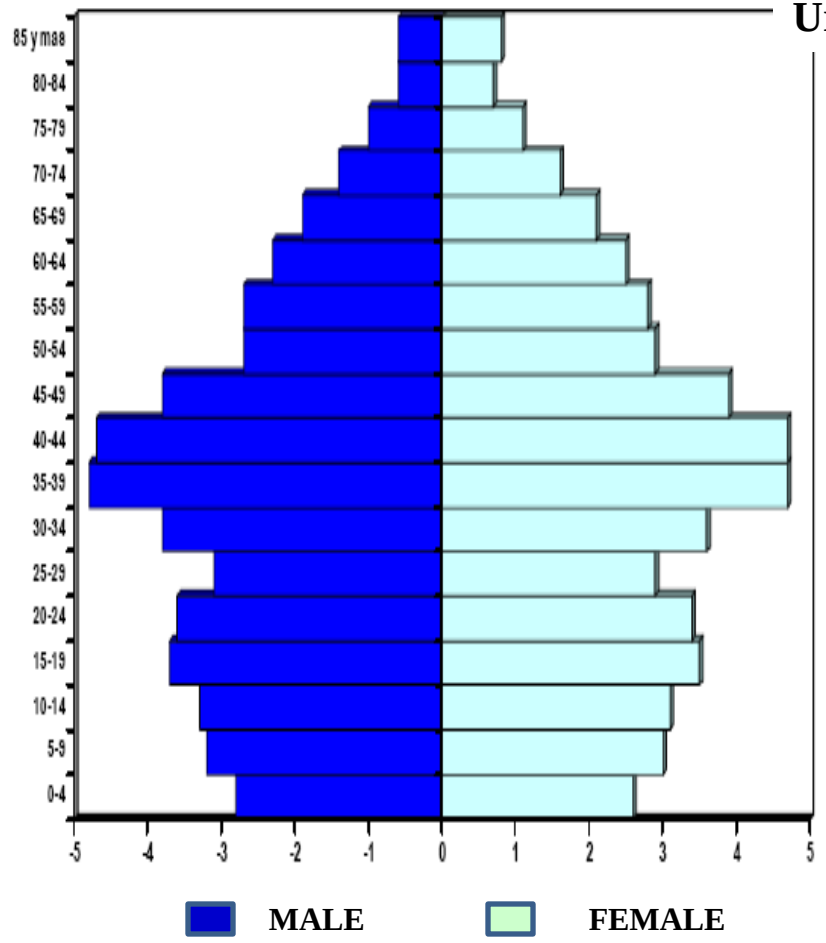
Cuban National Health System



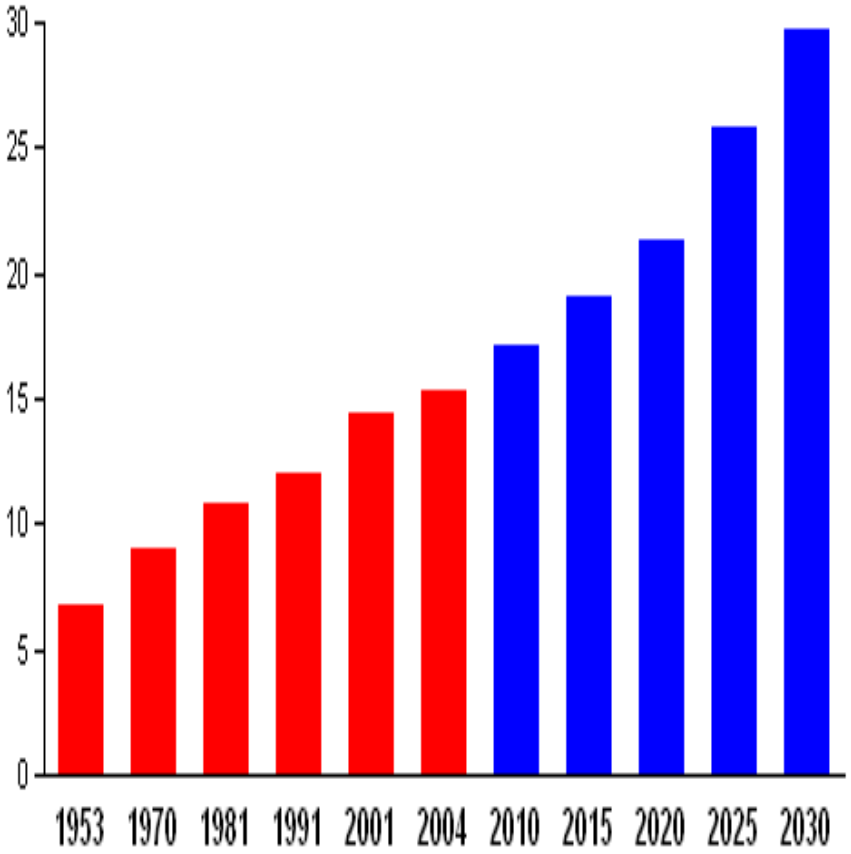
Cuban Population pyramid 2010

% Population › 60 years

Total population: 11´ 236,336
Urban Population: 75,4%



Fuente: ONE 2006. Cuba. Proyección de la Población. Nivel Nacional y Provincial. Periodo 2007-2025



West Havana Scientific Pole

CIGB

CIM

CNIC

FINLAY

IPK

CIE

CNB

CIREN

CENSA

- 40 ORGANIZATIONS
- 12 000 WORKERS
- 7 000 SCIENTISTS and ENGINEERS
- 150 RESEARCH PROJECTS

❖ Scientific Pole Outcomes

❖ **PREVENTIVES VACCINS:**
ANTIMENINGOCOCCAL (UNIQUE IN THE WORLD)
ANTILEPTOSPIROSIS
ANTITYPHOID
RECOMBINANT ANTIHEPATITIS B
HAEMOPHILUS INFLUENZAE (TYPE B)
TETRAVALENT (DPT + HB), PENTAVALENT (DPT + HB + Hib)

❖ **OTHERS BIOTECHNOLOGICAL PRODUCTS AS**
RECOMBINANTS INTERFERONS ALFA AND GAMMA
SUMA EQUIPMENT
LEUFERON COLLYRIUM
INTACGLOBIN
RECOMBINANT STREPTOKINASE
TRANSFER FACTOR
HEBERPROT- P
PHARMACEUTICAL INDUSTRY INCLUDING CITOSTATIC PLANT

❖ **CANCER RELATED TREATMENTS**
VACCINS (EGF, GANGLIOSIDES, ANTI HER 1, 1E10) AND MONOCLONAL ANTIBODIES AGAINST CANCER (ANTI EGFR, ANTI HER2-NEU, ANTI CD 20) AND SUPPORTIVE CARE AS ERITHROPOIETIN, COLONY STIMULATOR FACTOR, ANTIEMETICS.

❖ **MONOCLONALANTIBODIES FOR NON CANCER DISEASES AS REUMATOID ARTHRITIS, PSORIASIS, BLOOD TEST**

CANCER AS NATIONAL HEALTH PROBLEM

The Cuban´s Oncological school begins in the decade of 1930 of the last century and has been receptive of all the world advances of the specialty. After 1970, with the integration of oncological services at the country, and the onset of the National Institute of Oncology and Radiobiology (NIOR) in Havana City, began a new era in the development of Oncology and Oncologists.

For that time the public medical services were deficient and private care was the rule. Some of this private doctors began to assist only cancer patients, at their offices and at public hospitals, most of them only as social work. At the country were built 3 facilities only for cancer patients, supported in part by the government but mainly by private donations. Education and information with important international centers of the world were obligated items, and their experiences and results were published at Archivos de Cancerología, a journal with international circulation.

MC Barroso Alvarez, O Rodríguez Brito, S Alsina Sarmiento, C Díaz Salas y F Areces Delgado. Desarrollo de la oncología médica en el Instituto Nacional de Oncología. Rev Cubana Oncol 1996;12(2)

After 1959 medical care began to change. Public hospitals and clinics were converted in centers with higher standard of care, with easy access of patients and free of charge. An important number of professionals left the country but the qualification and devotion of the remainders that formed the new generation of professionals guaranteed medical care. For Oncology it was not different and new generation of oncologists began to emerge.

After 1960, through the MINSAP´s Section of Fight Against Cancer was conformed a Program whose objtectives were:

- To Develop a National Oncological Network
- To Develop a National Cancer Registry
- To Purchase equipment for Cancer´s Prevention and Treatment
- To Update the knowledge of Professionals at highest levels
- Theoretical and Practical update in new technologies related with cancer management
- To Promote Cancer research

For these purposes there were created

- National Institute of Oncology and Radiobiology (NIOR)
- Cuban Society of Oncology, Radiotherapy and Nuclear Medicine
- National Group of Oncology (NOG)
- National Cancer Registry (NCR).

NATIONAL CANCER REGISTRY OF CUBA

This NCR was created with the purpose of to study the risk of several cancer´s types and to compare different subgroups in the population of the same area.

Report

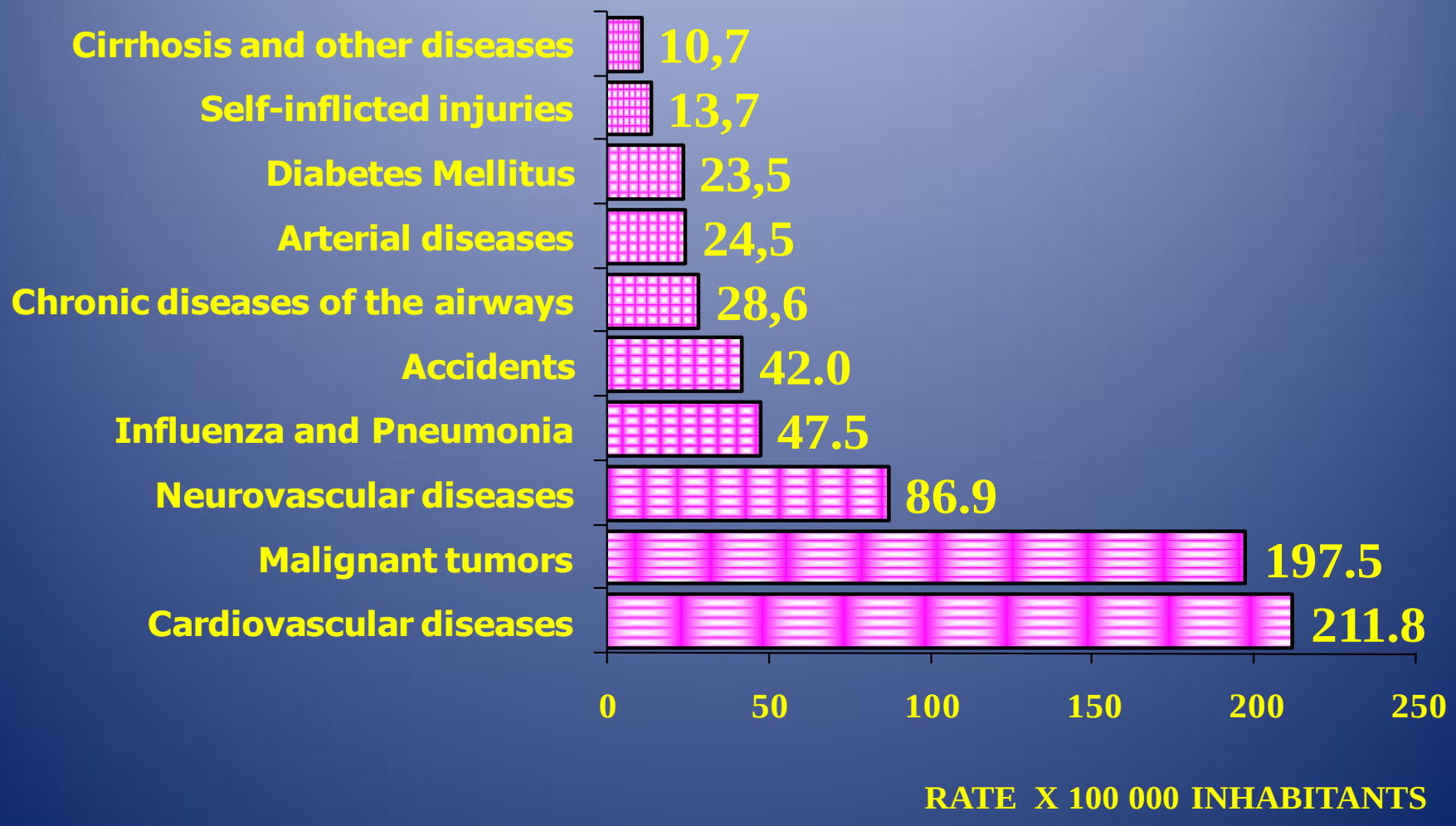
Clincal Records
Histopathological files

Hospital

Cancer Province Registry

National Cancer Registry Central´s office

Main causes of death in Cuba 2010



INCIDENCE

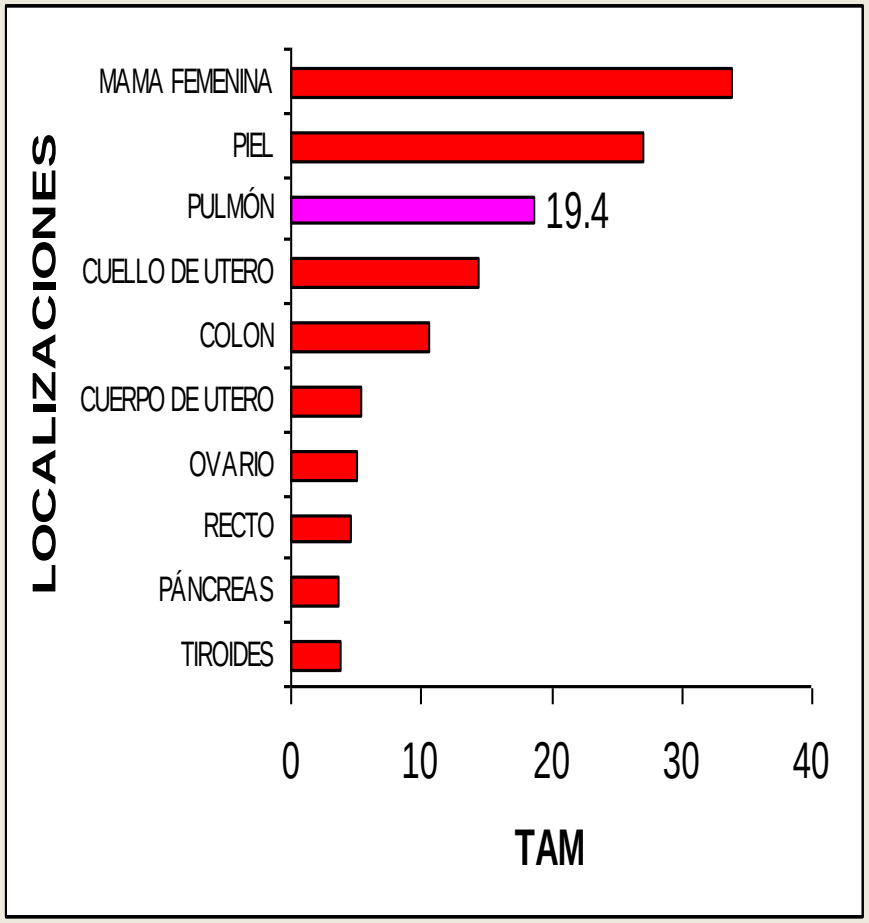
What we have in Cuba?

In 2010: 5,104 new cases

• men:	3,393	60.3	42.2
• women :	1,711	30.5	19.8

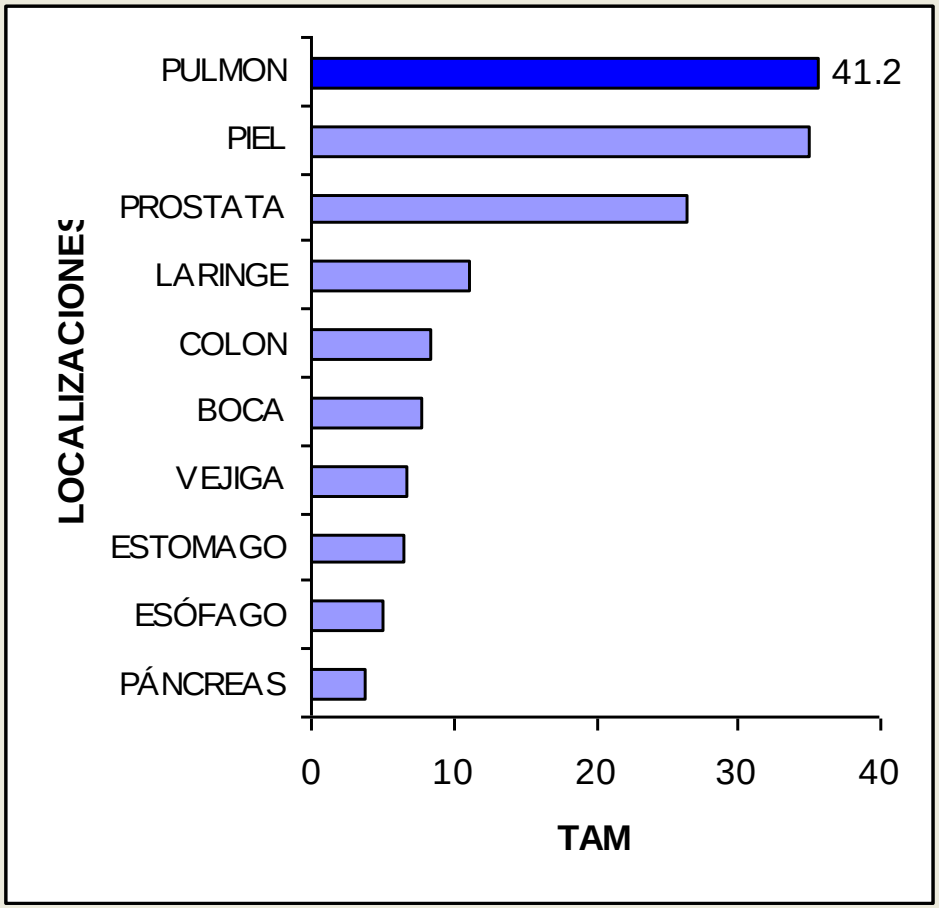
Cancer Incidence in Cuba 2006

Cancer localizations by gender



Pulmón 10%

Females



Pulmón 19%

Males

Fuente: Registro Nacional de Cáncer. Datos preliminares

Tasa x 100 000 habitantes ajustada a la Población Mundial

MORTALITY

What we have in Cuba?

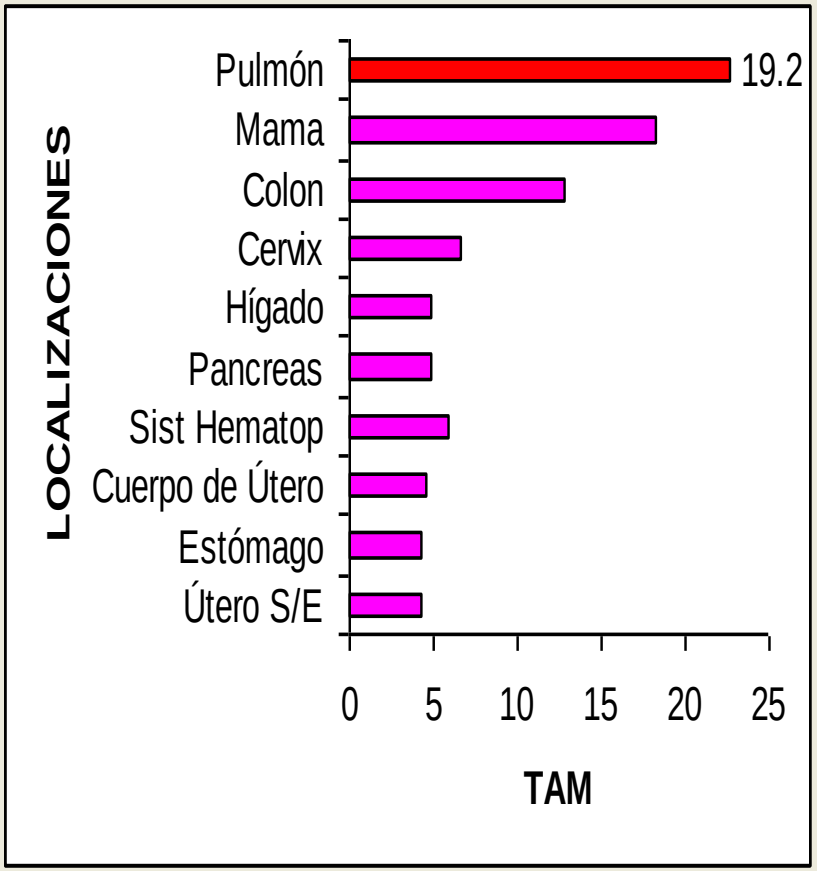
- Year 2010: 5 100 cases

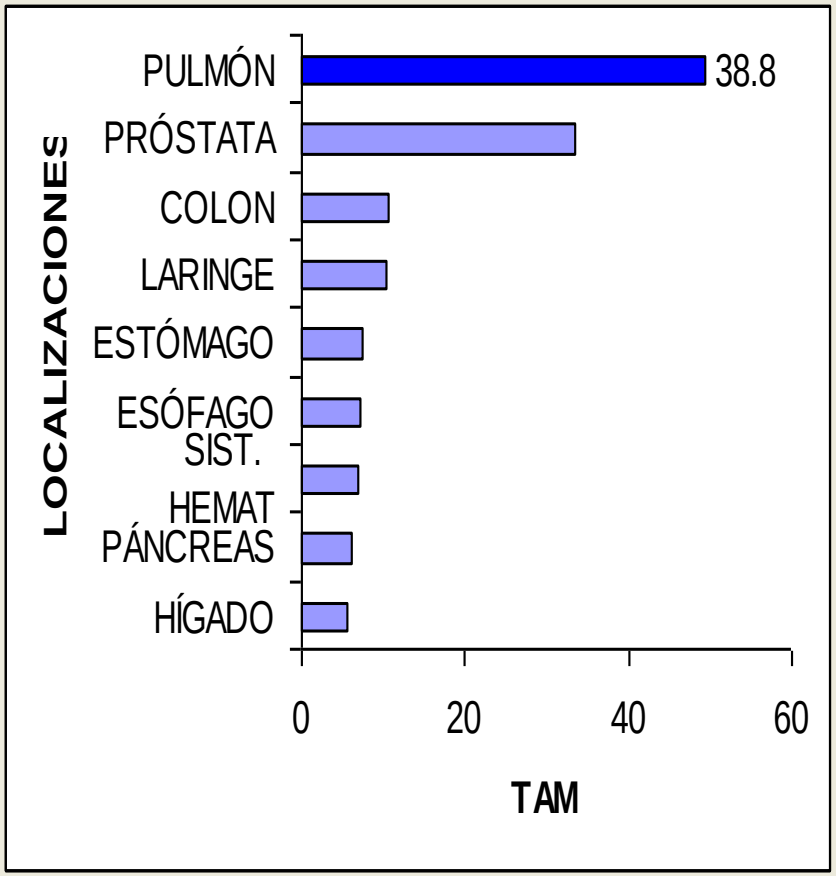
men:	3,274	58.2 (rate x 100,000 ih)
women:	1,826	32.6 (rate x 100,000 ih)

- Lung cancer are 23% of deaths in Cuba, and are 17% at the world.
- 86% are related with tobacco use. Avoidable death 3,386: 92 % for men and 75 % for women.

CANCER MORTALITY IN CUBA 2008

Cancer localizations by gender





Lung 19.3%

FEMALE

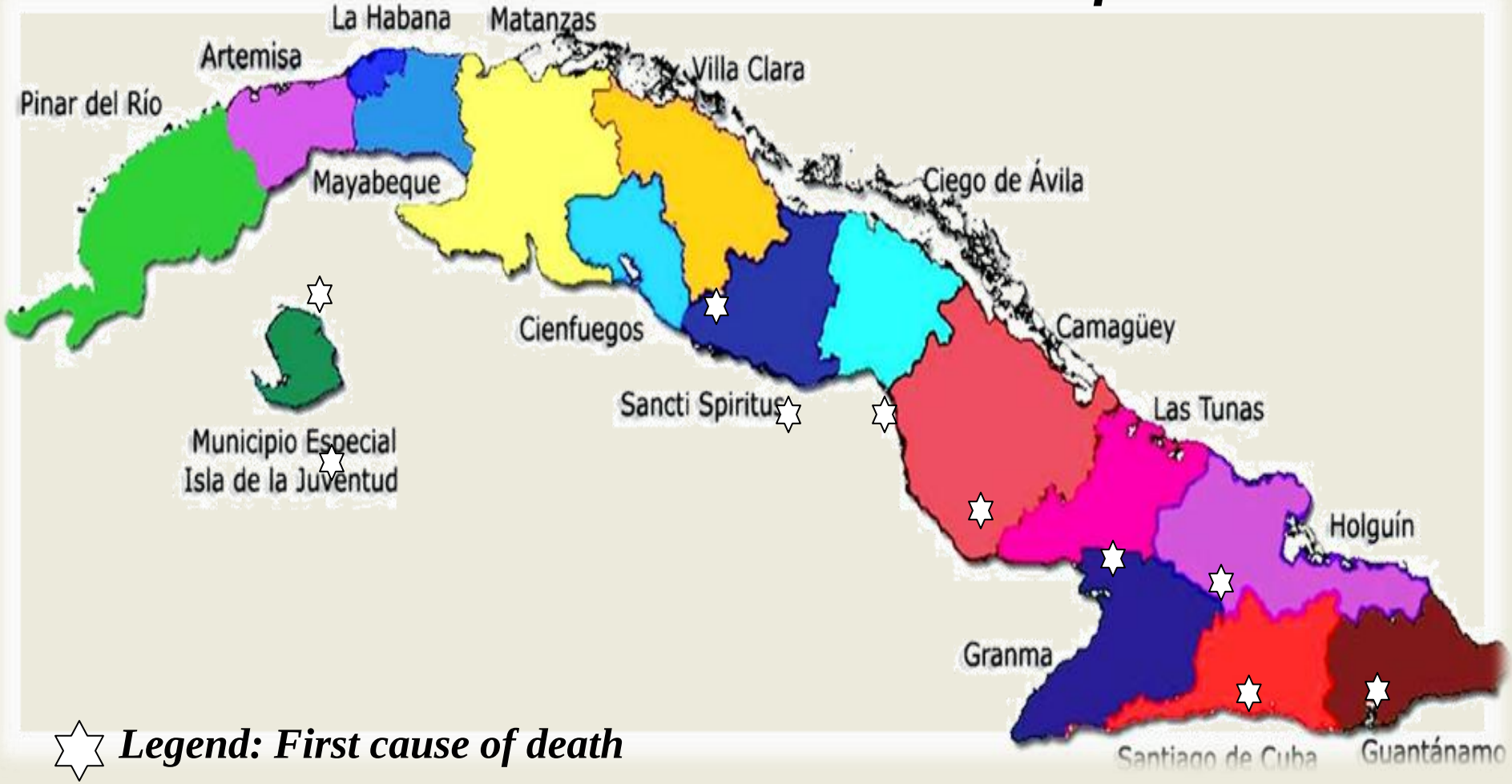
Lung 27.1%

MALE

Fuente: DNE TAM X 100 000 habitantes

CANCER IN CUBA

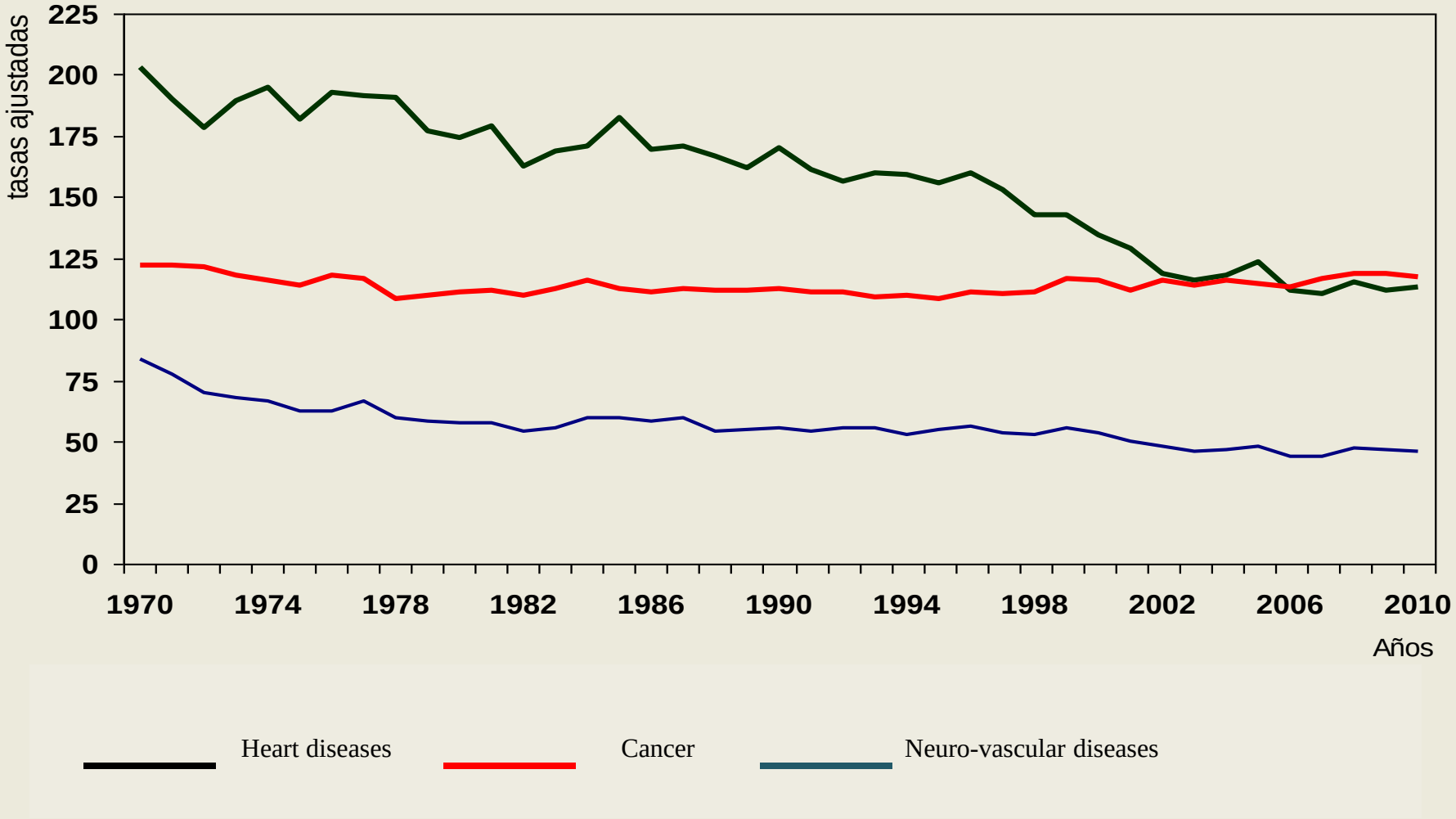
Second cause of death in Cuba



Legend: First cause of death

Source: Mortality Series. National Statistics Division. MINSAP

CANCER AS NATIONAL HEALTH PROBLEM



Source: Mortality Series. National Statistics Division. MINSAP

Cancer mortality by ages Years selected 1970-2010

Ages	1970	1980	2006	2010
5-14	6.5	5.8	4.2	4.9
15-49	28	25.1	30.9	32.5
50-64	262.4	247.7	286.9	290.0
65 and more	929.8	903.4	1034.8	1041.1

Source: Statistical Year book of Health 2011. MINSAP

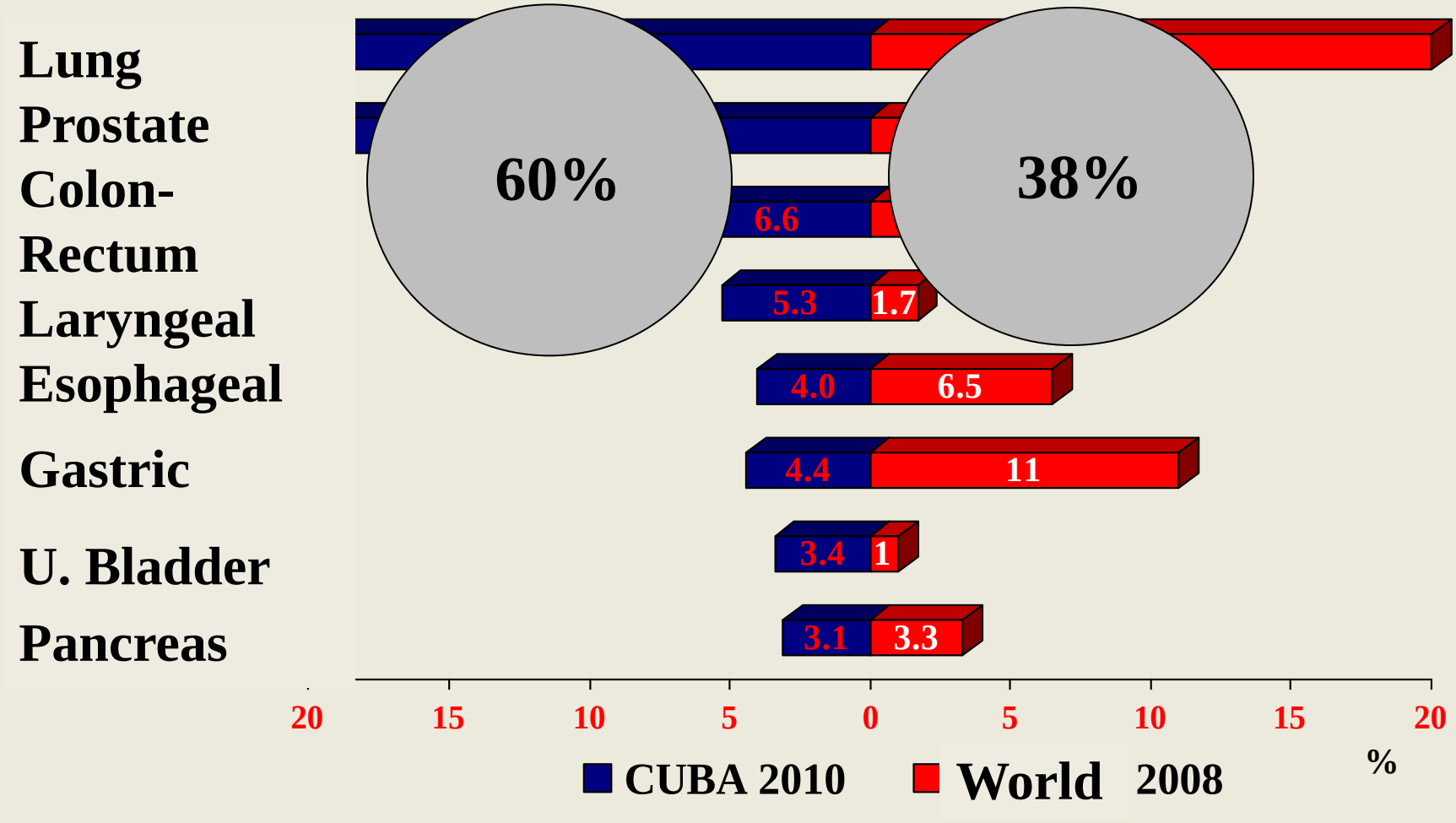
CANCER AS NATIONAL HEALTH PROBLEM

Years of potential life lost by main causes of death / 1,000 inhabitants from 1-74 years. Selected years.

Causes	1970	1980	1990	2000	2009	2010	2011
Heart diseases	11.3	12.3	12.8	11.6	11.1	11.5	10.5
Malignant tumours	13.3	12.8	13.5	15.5	17.9	18.3	17.9

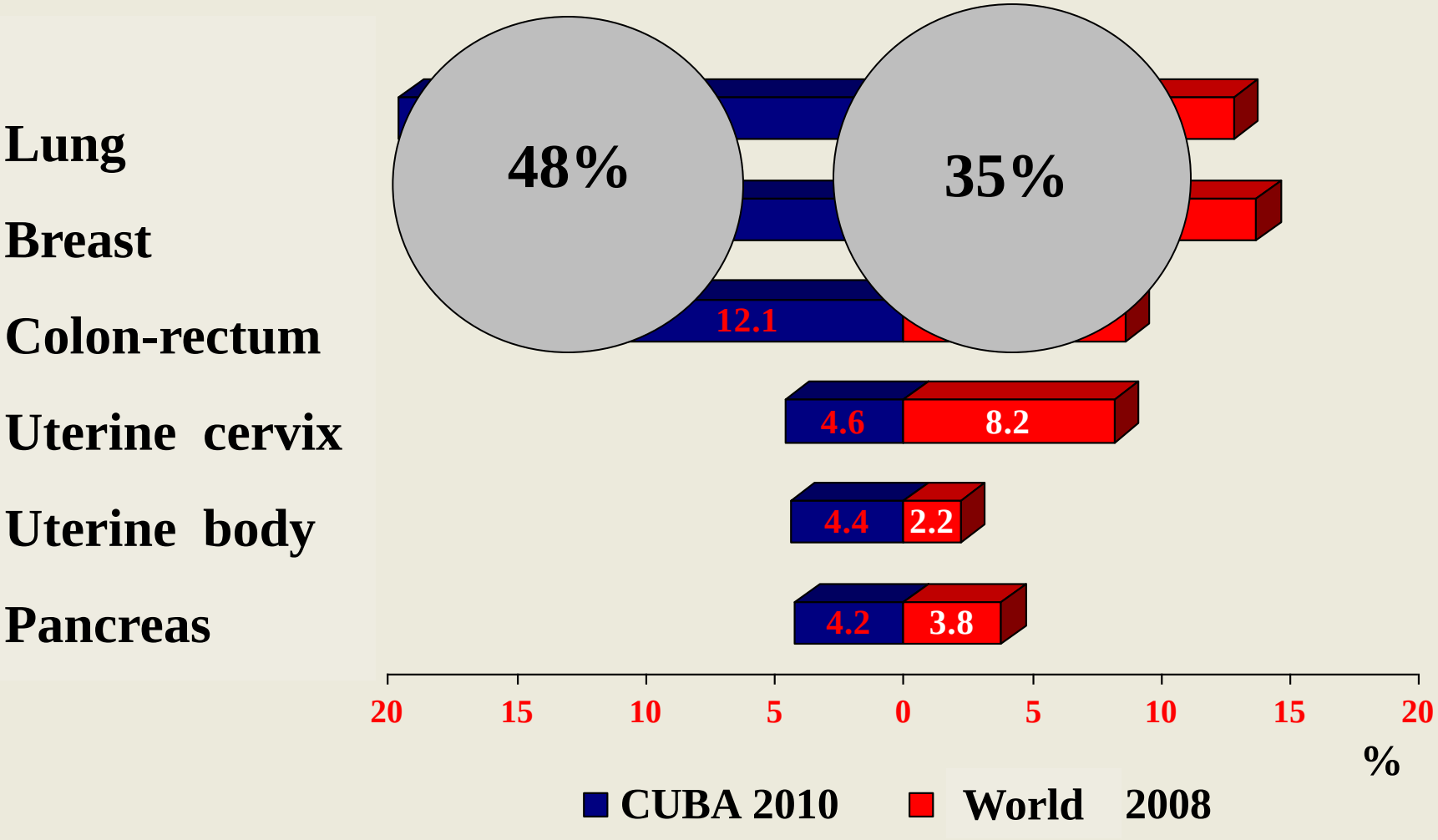
Source: Mortality Series. National Statistics Division. MINSAP

CANCER MORTALITY. MEN



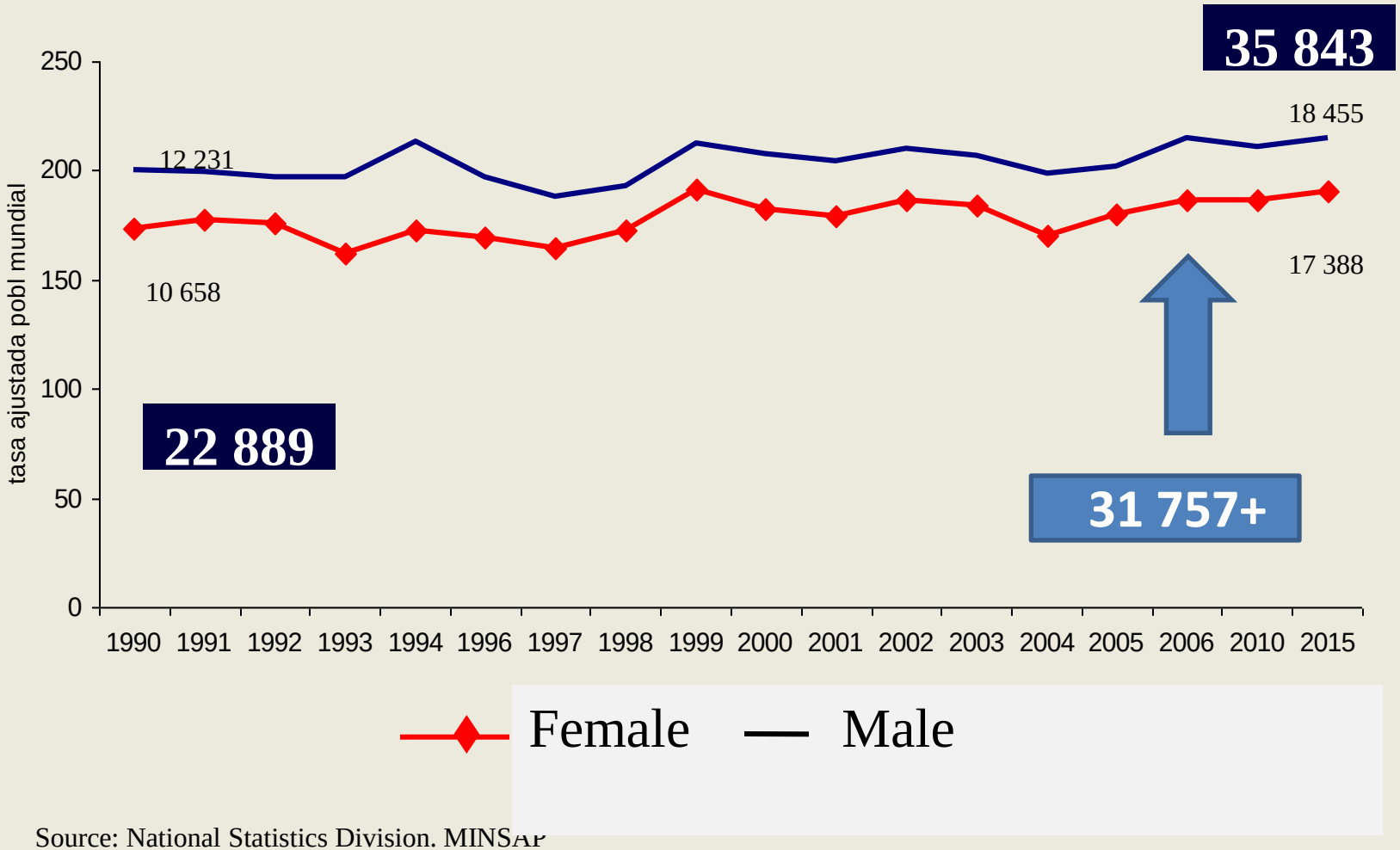
J. Ferlay, Int J Cancer 2010. Source: Mortality Series. National Statistics Division. MINSAP
Note: skin cancer excluded

CANCER MORTALITY. WOMEN



J. Ferlay, Int J Cancer 2010. Source: National Statistics Division. MINSAP
Note: skin cancer excluded

CANCER INCIDENCE BY GENDER IN CUBA. FORECAST 2015



Source: National Statistics Division. MINSAP

Nota: Pronósticos: regresión lineal segmentada

CANCER AS NATIONAL HEALTH PROBLEM

Mortality/Incidence rate

Year	2000	2007	2010
M/I	0.58	0.68	0.67

YEAR 2015 - 0.79

23 700 DEATHS

3 340 MORE

¿ We may avoid these deaths ?

National Unit for Cancer Control (UNCC) and The Comprehensive Cancer Control Program (IPCC)

National Unit for Cancer Control (UNCC) And Comprehensive Cancer Control Program (IPCC)

Created by the Health Minister in 2006, this Unit belong to MINSAP. It objective of work is the direction of the IPCC. The mission is to integrate, in a National Strategic Program of Health, the action and intersectoral collaboration of the population, in order to generate a systematic and coordinated response with the aim of decrease cancer mortality and contribute to increase a high quality expectancy of life of the Cuban population.

National Unit for Cancer Control (UNCC)
And The Comprehensive Cancer Control Program (IPCC)

This unit works as a coordination institution and works with teams at the place and distance, using INFOMED as conduct thread. This UNIT converts the data in evidences to define decisions, generating administrative actions from Medical and Social Care levels in close relations with all MINSAP´s areas.

This team is integrated by the Chief and 4 specialists (Programs, Cancer Registry, Development and the Observatory) working all time to this items. Moreover 369 experts work as collaborators, with different professional profiles, working in or out the sectorial, organized in 23 Specials Groups of Work (GET) and 498 medical doctor as Cancer Control in Primary Care, all of them with part time.

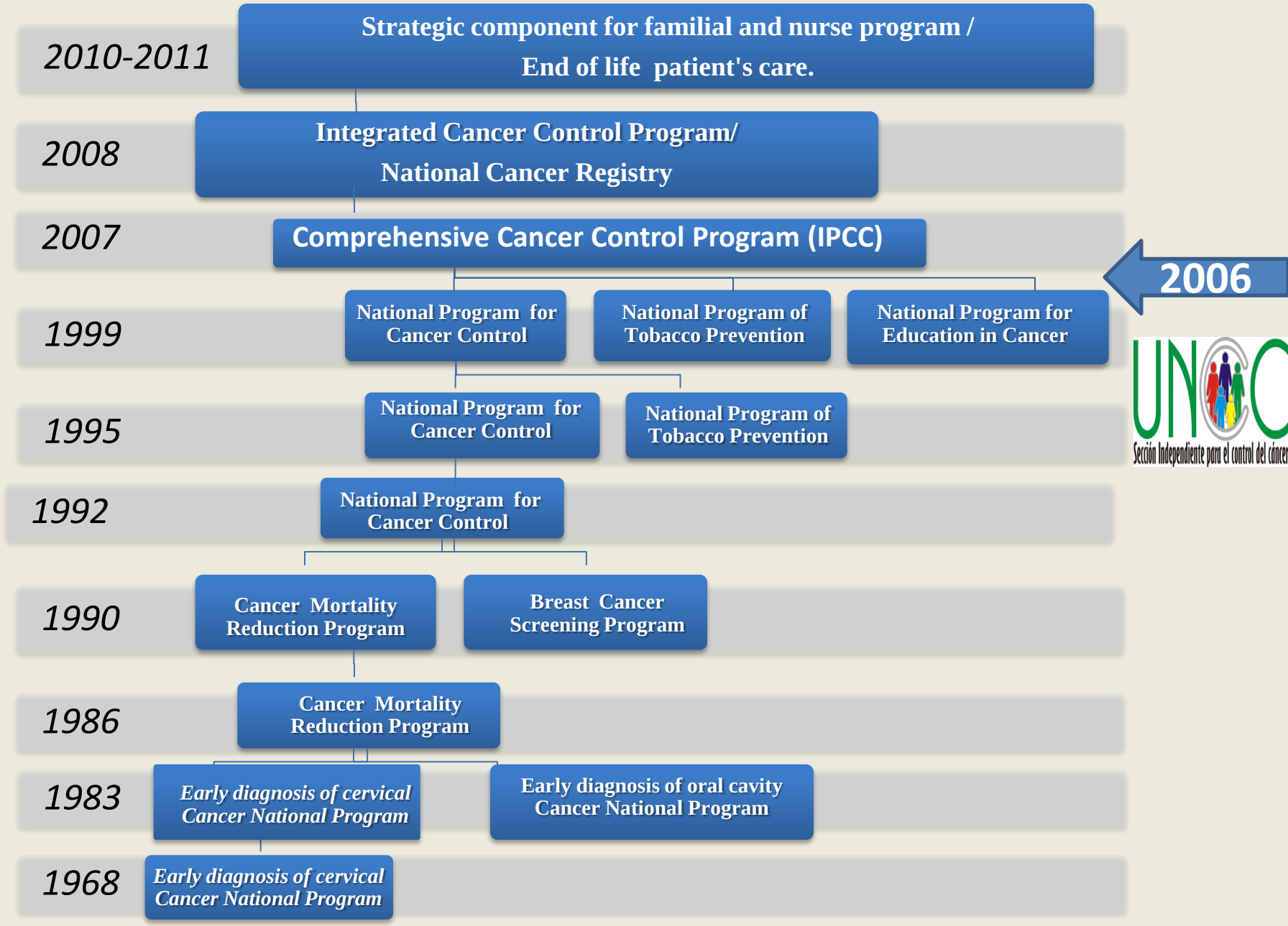
For scientific management and innovation they have the support of the Knowledge Management and Advanced Technology (GESIT), the National Group of Oncology, the National School of Public Health (ENSAP) and the Scientific Council of NIOR, in relation with the development of the specialty.

This Program is more than rules to improve the oncological medical care (even so it has it too): is an organized effort designated to modify the ¨hard indicators¨ as incidence, mortality and survival. Contain multi-sectoral actions at all levels of health system, implying:

- Educational system,
- Local governments,
- Social Scientifics Institutions,
- Social and Political organizations
- and other actors of Cuban Society.

CANCER AS NATIONAL HEALTH PROBLEM

Cancer Control Program Evolution. Milestone 2006



First Uterine Cervical cancer screening program in 1968

In 1968 knowing the high incidence of cervical cancer, first cancer localization at that time, mainly diagnosed at advanced stage of the disease in Cuban women, the first screening national program was designed at the end of this decade using Papanicolau test and including entire female population after first sexual relation or with more than 20 years old.

This program is still running with several modifications.

Up to date Cervical cancer is the 3rd cancer localization in female incidence and the 4th cause of death due to female's cancer.

Ministry of Public Health

Integrated Cancer Control Program

UNCC

Functional Structure

- Levels of care of NHC
- Experts Groups
- Scientific Pole and others sectors

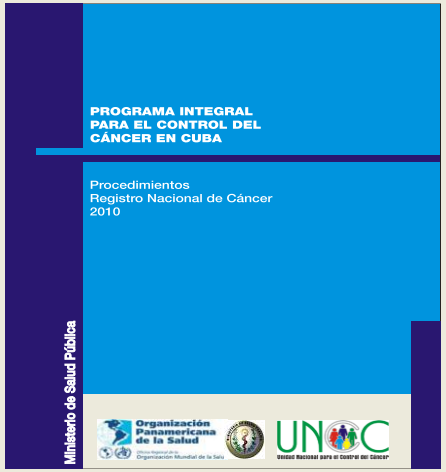
Components of the strategy

- Education- Communication
- Screening at PHC
- Diagnosis / Treatment
- Rehabilitation
- Continued Care
- Technical/Scientific development
- Evaluation and Quality

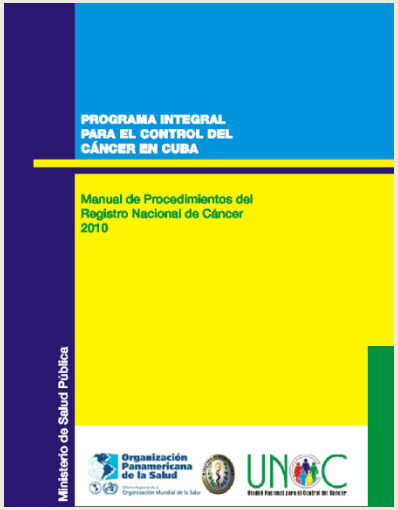
Cancer Observatory
Cancer Control National Network

UNCC
Sección Independiente para el control del cáncer

Educational books

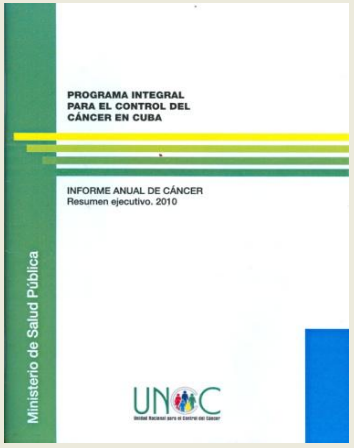


- Integrated Program for Cancer Control in Cuba. Pautas para la gestión. 2010.



- Integrated Program for Cancer Control in Cuba. Manual de Procedimientos del National Cancer Registry.2010 .

- Integrated Program for Cancer Control in Cuba. Cancer annual report. Ejecutive Resumen



- Integrated Program for Cancer Control in Cuba. Integrated plan for human resources education. 2010-2012

Strategic advantages 2012: Systematic actions are organized for cancer control from Primary Health Care

Healthy or symptomatic people

Cancer suspicious

References hospitals for diagnostic confirmation and oncospecific treatment

Patients requiring specialized diagnosis and/or treatment or inclusion in clinical trials

NIOR or another national institutions as corresponding

Require Radiotherapy or Nuclear Medicine procedures

Corresponding references hospitals

DIPLOMADO NACIONAL DE CONTROL DEL CÁNCER 2011-2012 UNOC

ALGORITMO DE CONTROL DEL CÁNCER CÉRVICOUTERINO

Laboratorios de Citodiagnóstico

Mujeres 25-64 años
Toma de muestra
cada 3 años:
-Consultorios
-Policlínico
-Hospital Rural

Citología Negativa (repetir a los 3 años)

Citología No útil (repetir en el año)

Citología Anormal (HPV, NIC o Cáncer Invasor)

CONSULTA PATOLOGÍA DE CUELLO

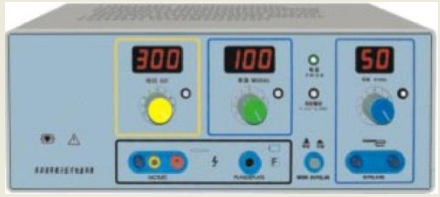
Los resultados siempre regresan al área de salud y se le informan a la paciente

BAJAS NEGATIVAS Y ALTAS

NIC y Etapas Ia - Ib1

DIAGNÓSTICO, TRATAMIENTO Y SEGUIMIENTO

CANCER INVASOR
Etapas Ib - IV
Unidades oncológicas



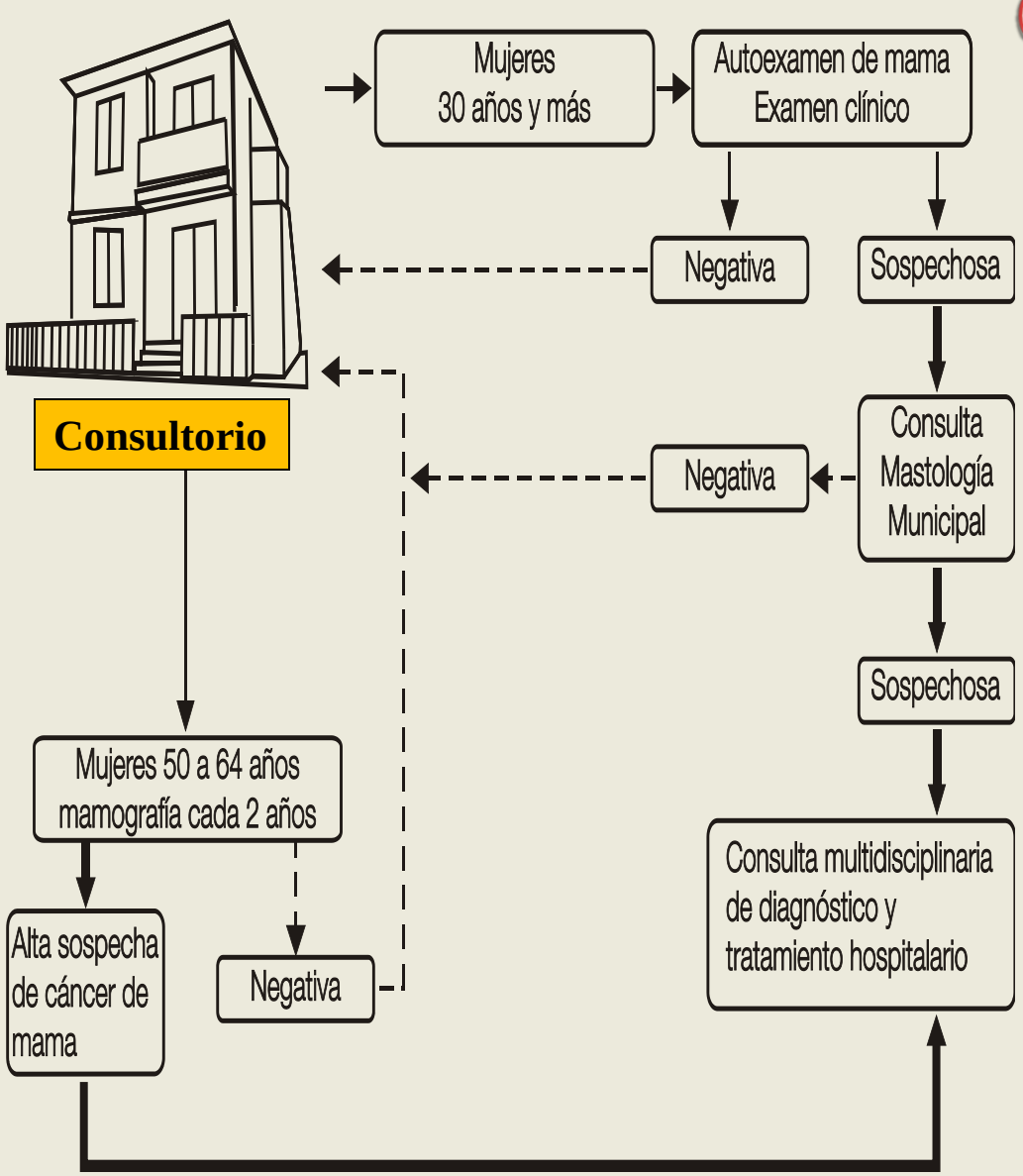
Equipo de radiofrecuencia para electrocirugía del cuello uterino

CÁNCER DEL CUELLO UTERINO

SET PARA TOMAR LA MUESTRA PARA LA PRUEBA CITOLÓGICA

SUMASCOPE
COLPOSCOPIO DIGITAL ELECTRÓNICO

ALGORITMO DEL CONTROL DE CÁNCER DE MAMA



CÁNCER DE MAMA

EXAMEN FISICO
(1 vez al año)
a partir de los
30 años.

MAMOGRAFIA
(cada 2 años)
para las mujeres de
50 a 64 años.

ALGORITMO PARA EL CONTROL DEL CÁNCER DE COLON

Consultorio médico de familia (Examen médico o chequeo integral a la familia)

Asintomático

Propuesta de pesquisa para población de 50 años o más

Sangre oculta en heces fecales (anual) Rectosigmoidoscopia flexible o colon por enema de doble contrates (cada 5 años)

Negativo

Paciente con alta sospecha de positividad

Sintomático

Grupos con riesgo familiar (Antecedentes de adenomas colorectales y poliposis familiar)

Colonoscopia cada 5 años

Regionalización al hospital

Estudio de sensibilidad en pacientes con el diagnóstico de cáncer de colon Instituto de Gastroenterología

CÁNCER COLO-RECTAL

SUMASOHF

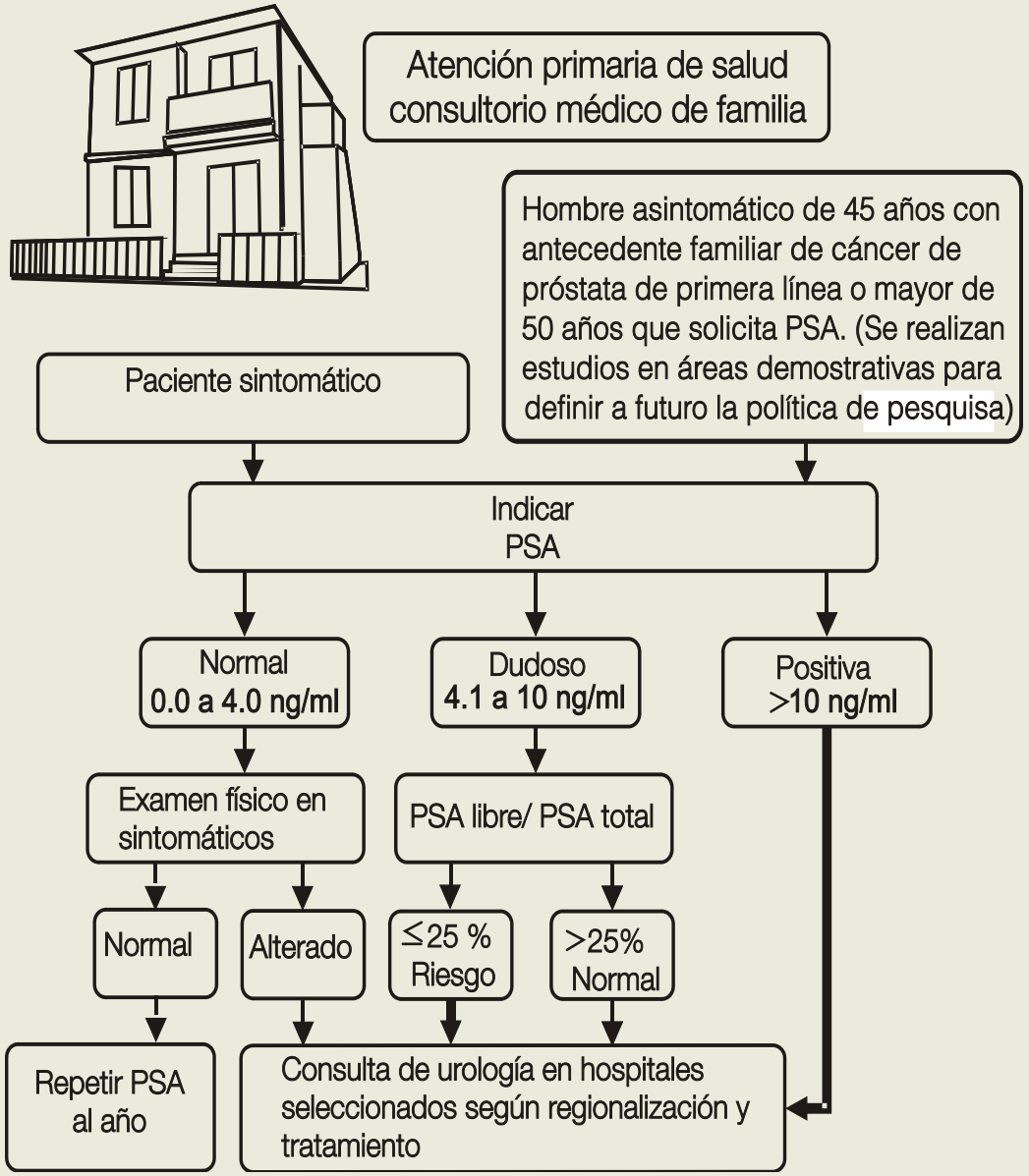
En proceso de registro en el CECMED

ENSAYO INMUNOCROMATOGRÁFICO PARA LA DETECCIÓN DE SANGRE OCULTA EN LAS HECES FECALES

SUMASOHF	Ensayo de referencia (colonoscopía)		TOTAL
	POSITIVO	NEGATIVO	
POSITIVO	33	1 (FP)	**34**
NEGATIVO	0 (FN)	7	**7**
TOTAL	**33**	**8**	**41**
HEXAGON OBTI			
POSITIVO	32	1 (FP)	33
NEGATIVO	1 (FN)	6	7
TOTAL	33	7	40

ALGORITMO PARA EL DIAGNÓSTICO DEL CÁNCER DE PRÓSTATA

CÁNCER DE PROSTATA



UMELISA PSA

PSA TOTAL (a > 50 años que lo soliciten o sintomáticos)

Si PSA Total ELEVADA

PSA Libre / PSA TOTAL

Si < 25% ALTO RIESGO

Considerar confirmación

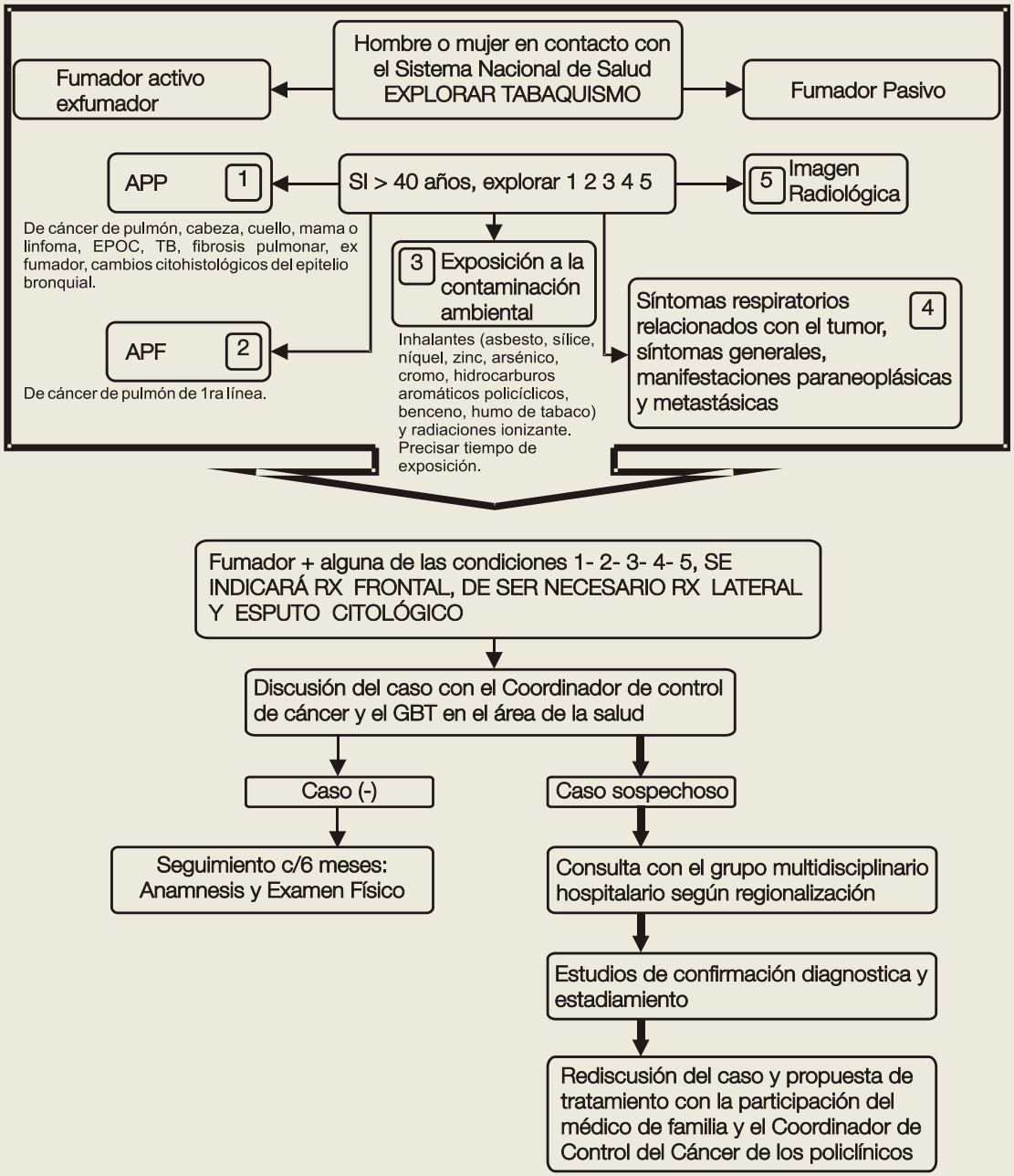
Tacto Rectal

Ultrasonido

Ultratransrectal

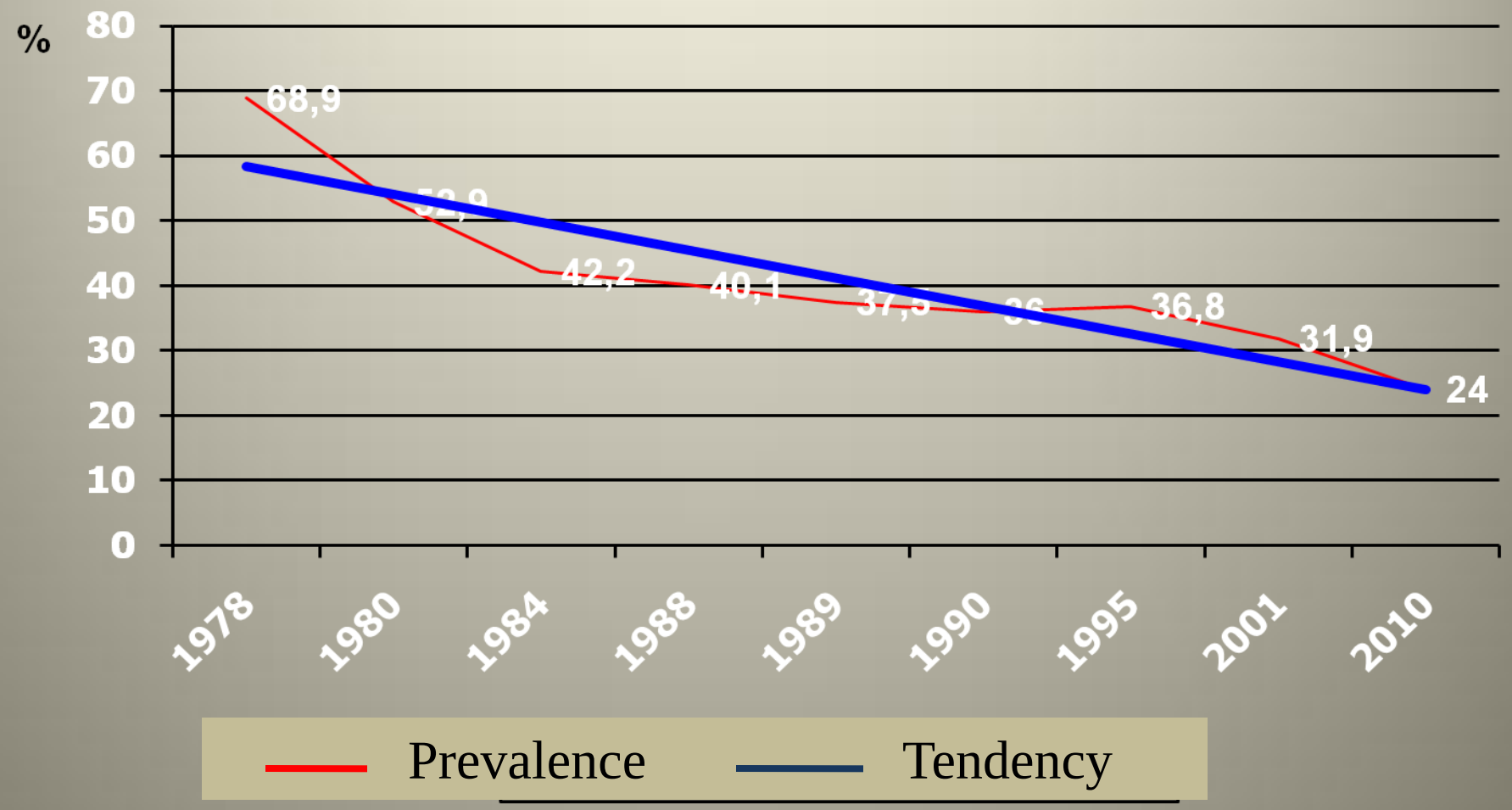
Biopsia o evolucionar

ALGORITMO DEL CONTROL DE CÁNCER DE PULMÓN



CÁNCER DE PULMON

Prevalence of Tobacco Smokes. Cuba 1978-2010



Tobbaco Prevention

The main important rule in the morbidity and mortality for the diseases related with it.

We may prevent Cancer

Vaccines, exercises, healthy diet, avoid tobacco
and alcohol, no sun exposure contribute
to decrease your and your family´s cancer risk

Begin today

PARTICIPA EN EL
DÍA MUNDIAL
CONTRA EL
CÁNCER
4 DE FEBRERO

www.uicc.org