

International Atomic Energy Agency (IAEA) Human Resources Development in Radiation Oncology in the Context of Cancer Control Programmes in Latin America

Buenos Aires, 23 a 27 de abril de 2007

Luiz Antonio Santini

National Cancer Institute (INCA)

Brasil

INSTITUTO NACIONAL DE CÂNCER

70
anos de luta pela vida

INCA

70 anos de luta pela vida
1 9 3 7 - 2 0 0 7

www.inca.gov.br

INCA
Ministério da Saúde

BRASIL
UM PAÍS DE TODOS
GOVERNO FEDERAL



Ministério da Saúde



Hospital Complex



HC I e CEMO



HC II



HC III



HC IV



Attributions

- a) **Assist the Health Minister in the design of the National Policies for Oncologic care;**
- b) **Conduct national actions of prevention, diagnosis and treatment of malign neoplasia and its correlated disorders;**
- c) **Provide medical assistance;**
- d) **Conduct clinical, epidemiological and experimental research;**
- e) **Provide formal education, training and development of human resources.**

Screening

Model of the Natural History of the Disease

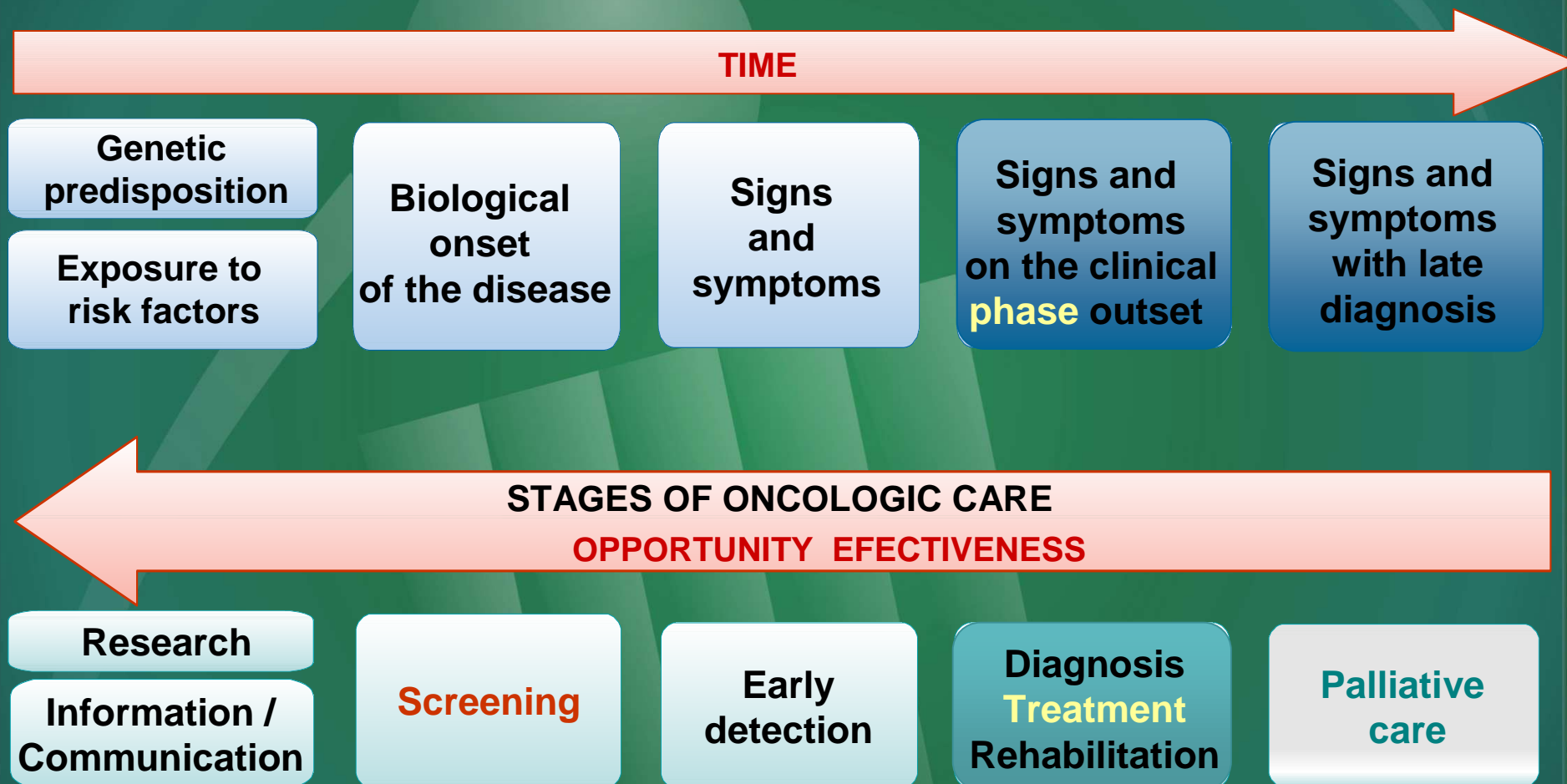


Table 5.1 Criteria for instituting a screening programme

1. The condition to be detected is of public health importance.
2. The natural history of the condition is understood and there is an unsuspected but detectable (pre-clinical) stage.
3. There is an ethical, acceptable, safe and effective procedure for detecting the condition at a sufficiently early stage to permit intervention.
4. There are ethical, acceptable, safe and effective preventive measures or treatments for the condition when it is detected at an early stage.
5. There is sufficient political will, and it is feasible to carry out the relevant screening, diagnostic and intervention practices in a population-based manner with existing resources or with resources that could be obtained during the planning period.
6. Adoption and implementation of the screening, diagnostic and intervention practices will strengthen development of the health system and overall societal development in a manner consistent with the principles of primary health care.
7. The cost of the screening and intervention is warranted and reasonable compared with alternative uses of resources.

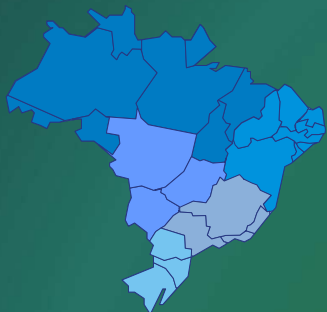
Source: National Cancer Control Programmes. Policies and managerial guidelines. WHO, 2002. p.59

Actions for Early Detection

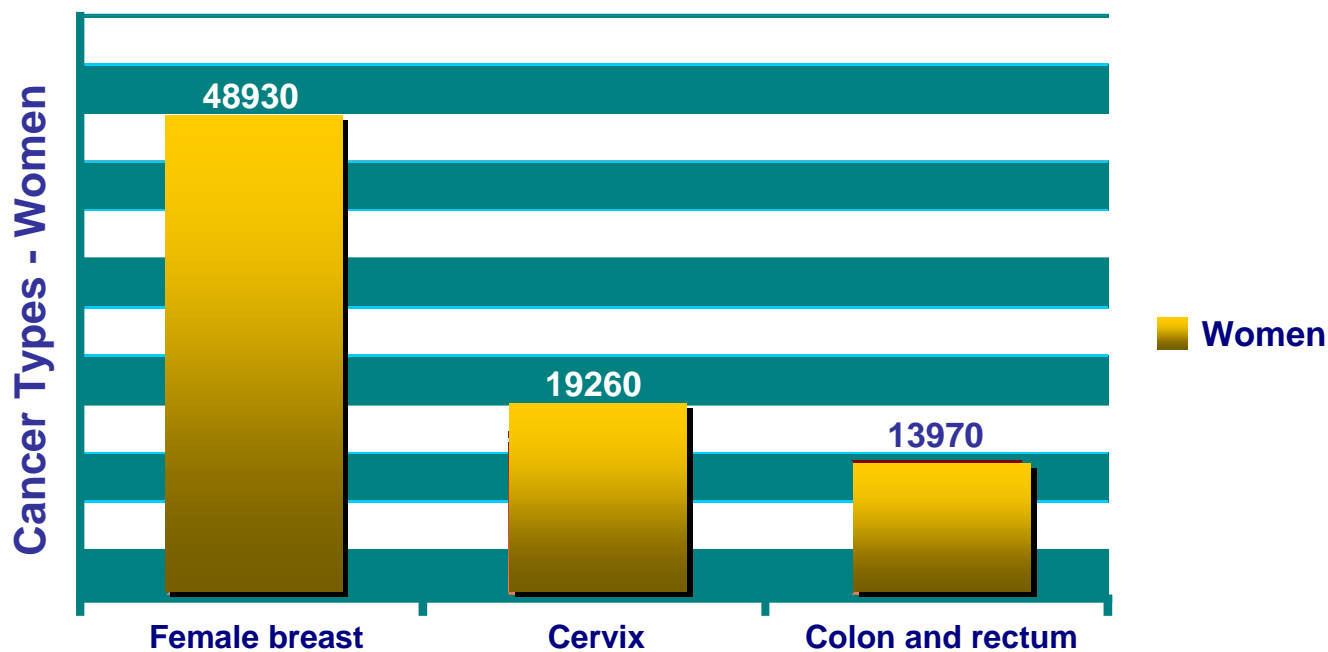
Location	Population screening
Breast	Yes
Cervix	Yes
Prostate	No
Intestines	No
Skin	No
Oral cavity	No

Source: National Cancer Control Programmes. Policies and managerial guidelines. WHO, 2002.

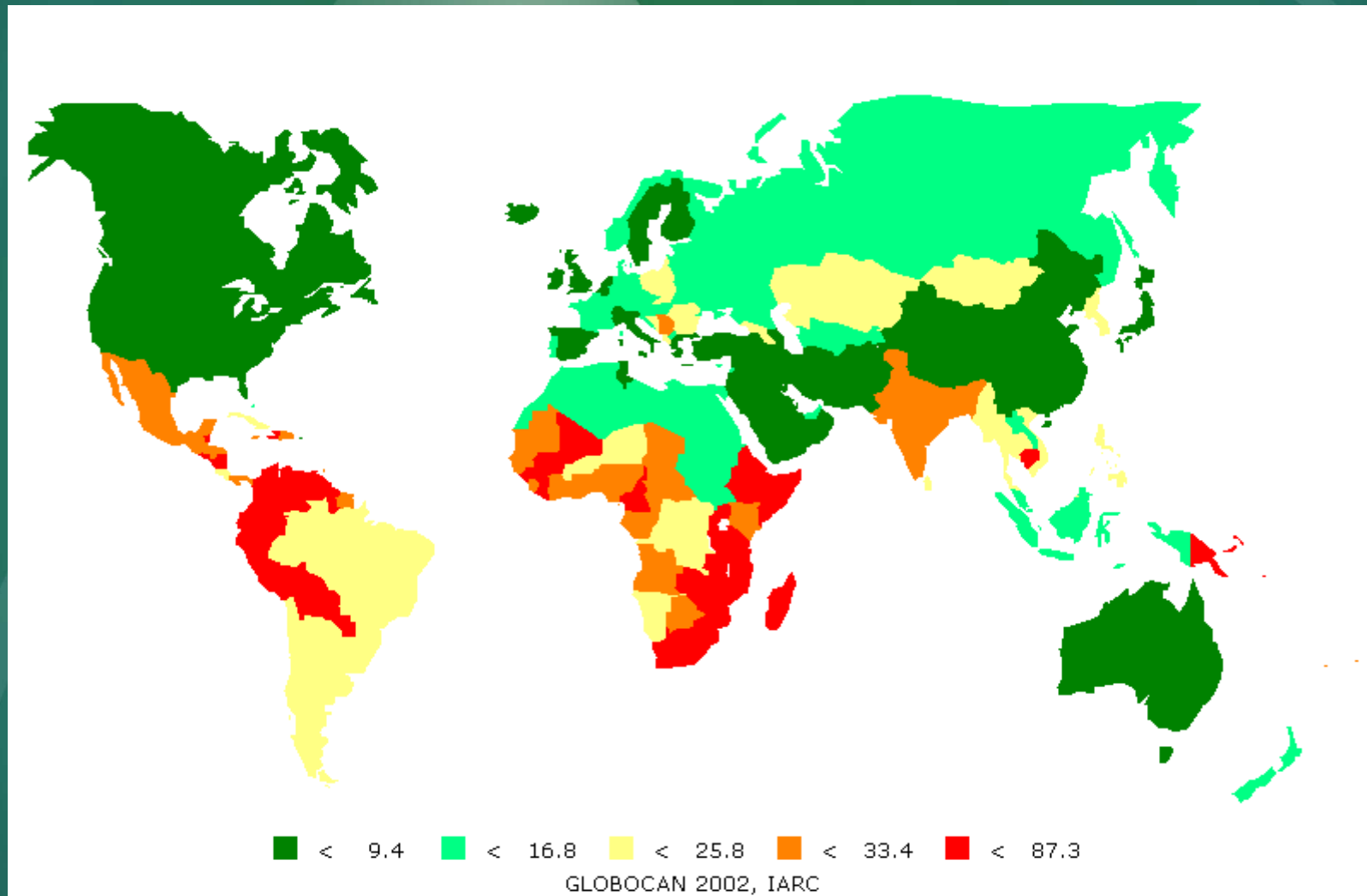
Cancer of the Cervix Screening



Incidence in Women

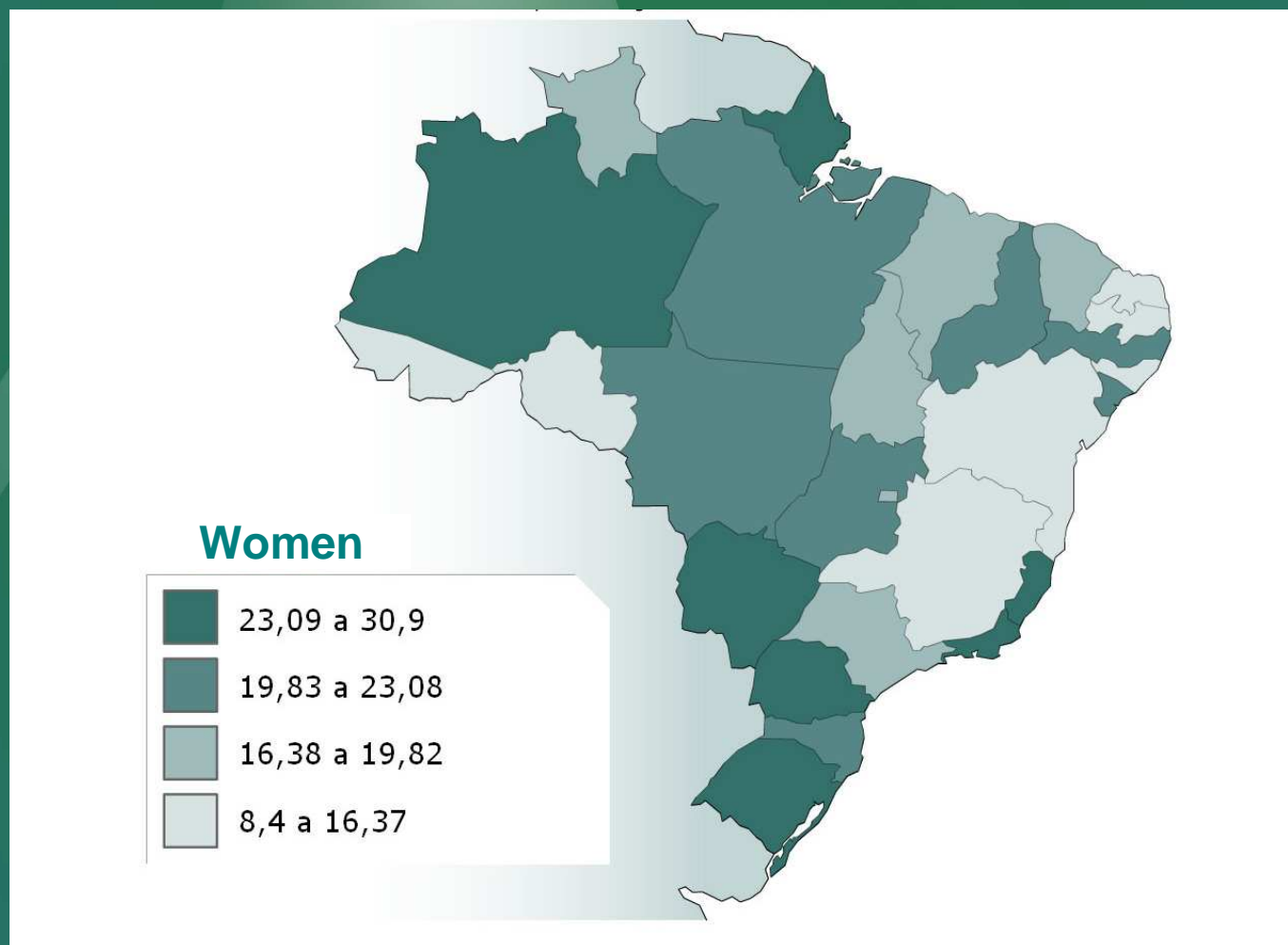


World distribution of incidence coefficients for cancer of the cervix in women, 2002



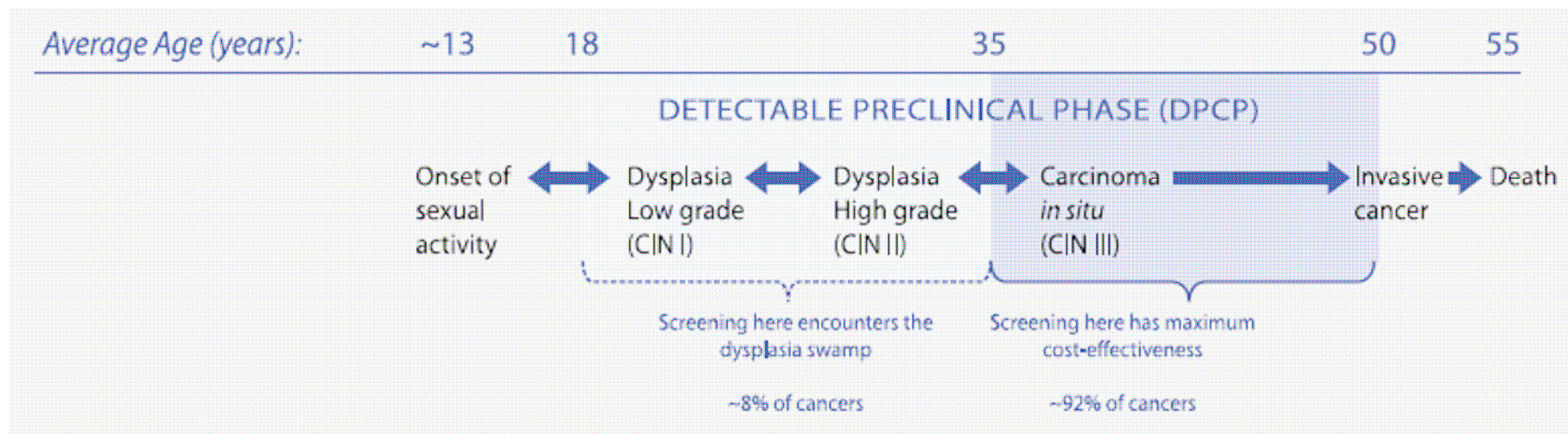
Source: Globocan 2002, IARC

Distribution of incidence coefficients for cancer of the cervix in women, 2006



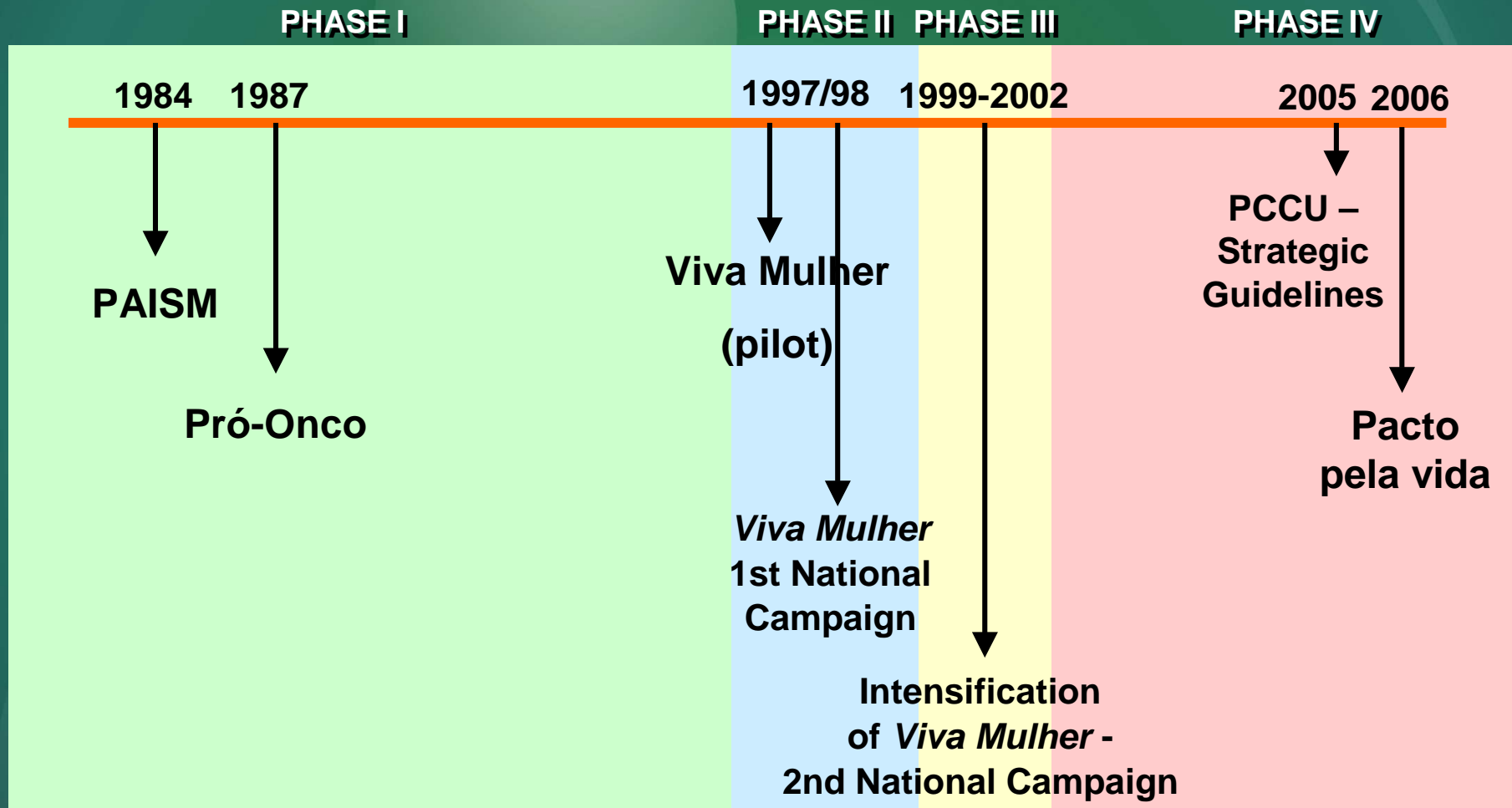
Source: MS/Instituto Nacional de Câncer - INCA

Natural History of Cancer of the Cervix



Source: National Cancer Control Programmes. Policies and managerial guidelines. WHO, 2002. p.60

Cancer of the Cervix Control in Brazil: History



Phase I - Before 1997

Proposition of Policies

Reality

- Isolated actions
- Lack of continuity
- Lack of articulation
- Non guaranteed treatment
- No evaluation



PHASE II-a. *Viva Mulher* pilot project (1997 - 1998) 5 municipalities + 1 state

- **Development of a model for early detection**
- **Standardization of procedures**
 - **Technical procedures for specimen collection and slide examination**
 - **Quality and treatment monitoring**
 - **Incorporation of new technologies**
- **Definition of the referral flow**
- **Conduct qualitative research;**
- **Partnership with NGOs, universities, and scientific societies;**
- **Humanization of health care;**
- **Design of a model for political-managerial articulation;**
- **Development of a computer system to monitor actions (SISCOLO).**

PHASE II-b. National Implementation Phase (Aug/ Sep 1998)

- **Implementation of the National Programme for Cancer of the Cervix Control (PNCCCU) on 06/21/98;**
- **Implementation of actions in all states, with adherence of 98% of municipalities from August to September 1998.**

MAIN ACHIEVEMENTS:

- **Standardization of screening, diagnosis and treatment actions**
- **Extension of actions to all states**
- **Test of the network's capacity**
- **Doubling of the number of cytology tests**
- **Strengthening of partnerships**
- **Availability of treatment through CAF in the public health care network**
- **Financing guaranteed**



PHASE III. Consolidation Phase (1999-2002)

OBJECTIVE

Increase access to actions on cancer of the cervix early detection for Brazilian women, specially those in the high-risk age group, and guarantee appropriate treatment for the disease and its precursor lesions.

Main strategies:

- Consolidation of a geopolitical managerial base,
- Articulation of a communication network for women,
- Reevaluation of the actual technology availability for diagnosis and treatment,
- Training human resources, and
- Designing an evaluation plan



Phase IV. Populacional Strategy:

Cytopathologic screening within primary care

(Strategic guidelines and *Pacto pela vida*)

Qualification of diagnosis and treatment:

- ✓ Quality control of cytopathology testing – specific legislation for internal and external control; ME module implemented at SISCOLO
- ✓ Terminology based on 2001 Bethesda Consensus (comparability)- implementation of the new Brazilian version – July 2006
- ✓ Standardized clinical conduct (manual of recommendations)
- ✓ Technology for clinical treatment implemented: “see and treat” method

Network organization:

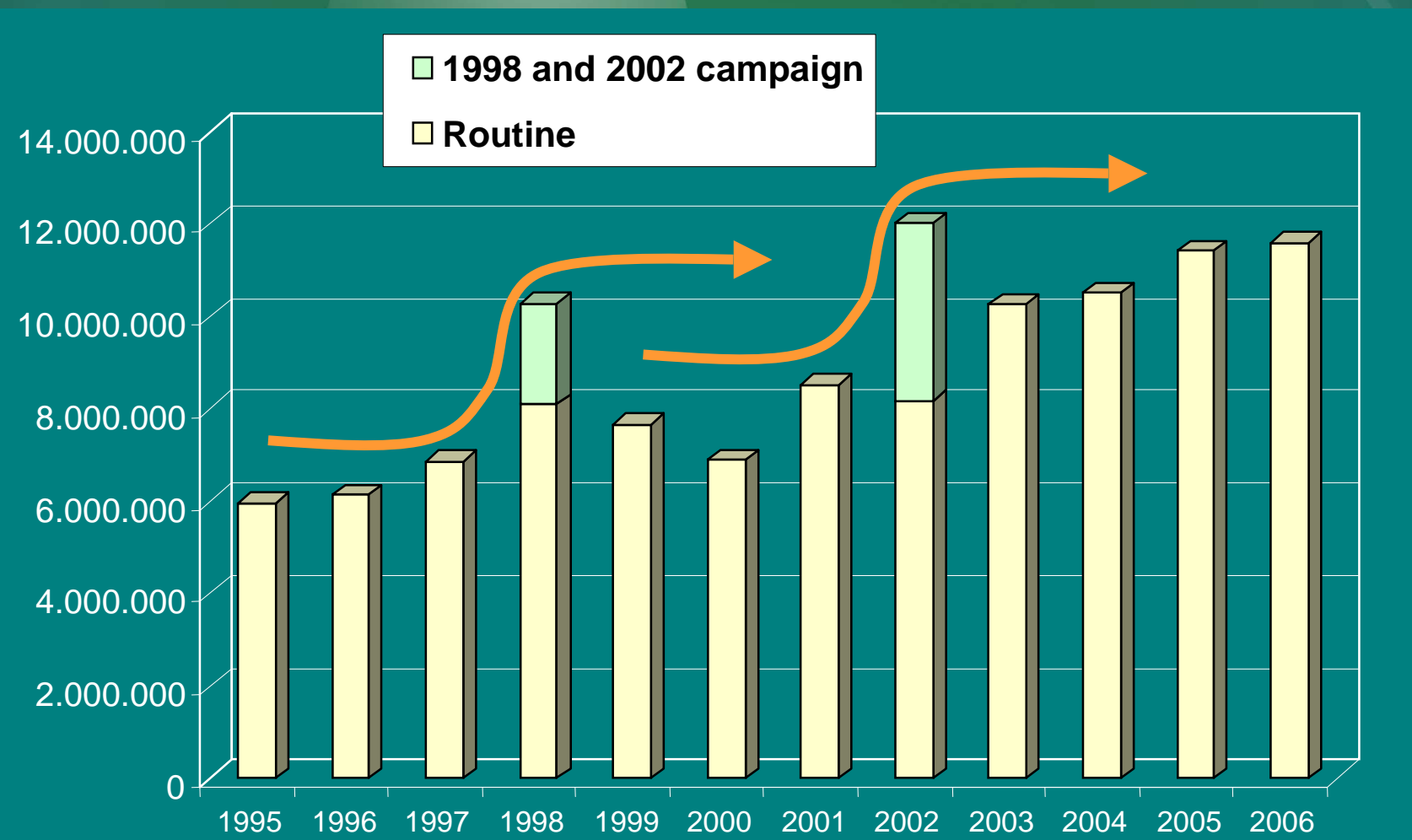
- ✓ Decentralized control actions: municipal sphere
- ✓ Activities based on the natural history of the disease: from primary prevention to palliative care
- ✓ Organization based on the oncologic care network structuring
- ✓ Expansion of oncologic care based on coverage parameters



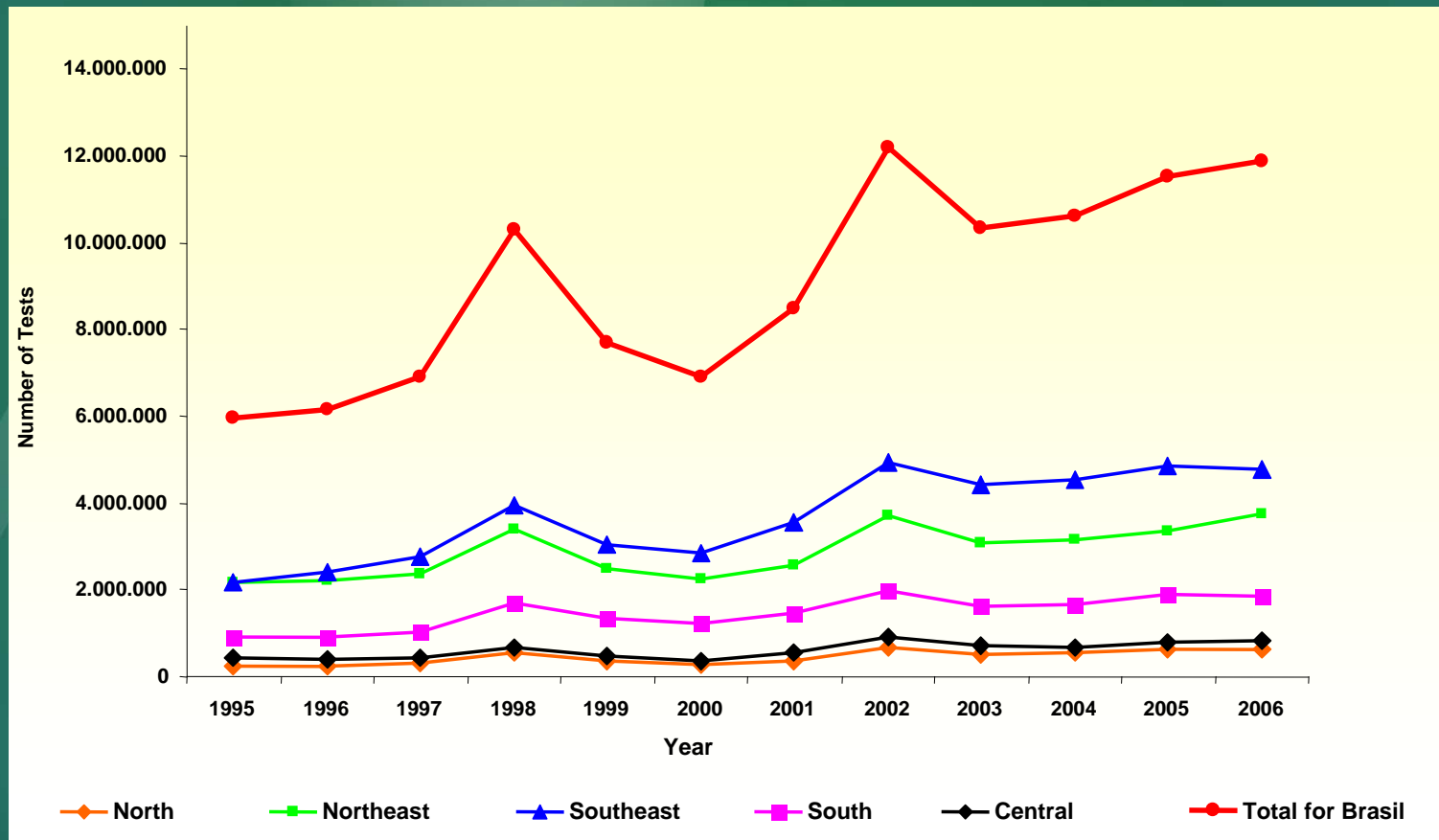
Cancer of the Cervix Control in Numbers

- **Pilot Project (5 municipalities + 1 state; 1997/98)**
 - 124.440 Women
- **Intensification Phase of the Programme (Brazil; August/September 1998)**
 - 3.177.740 women
- **Consolidation Phase of the Programme – ROUTINE - (Brazil; since 1999)**
 - Until 1998 - 6 million cytology tests per year
 - 1999 to 2002 – 8 million cytology tests per year
 - After 2002 – 11 million cytology per year

Number of cervical cytopathologic Tests Brazil, 1995 to 2006



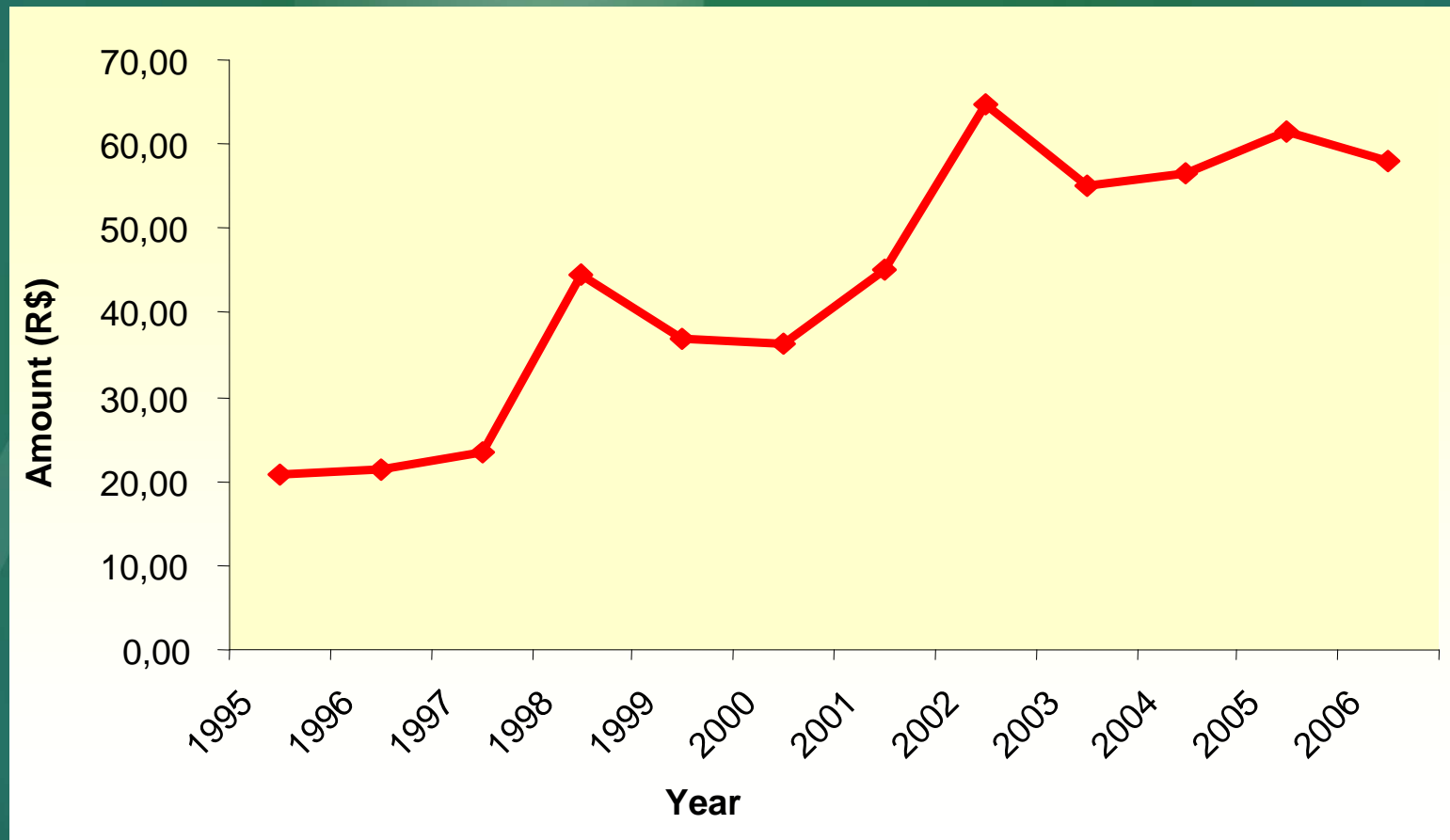
Number of Cervical Cytopatologic Tests per Year in Brazil and Brazilian Regions, from 1995 to 2006 *



•Projection for 2006 (data for 11 months)

Source: Datasus (www.datasus.gov.br, access on 02/02/2007)

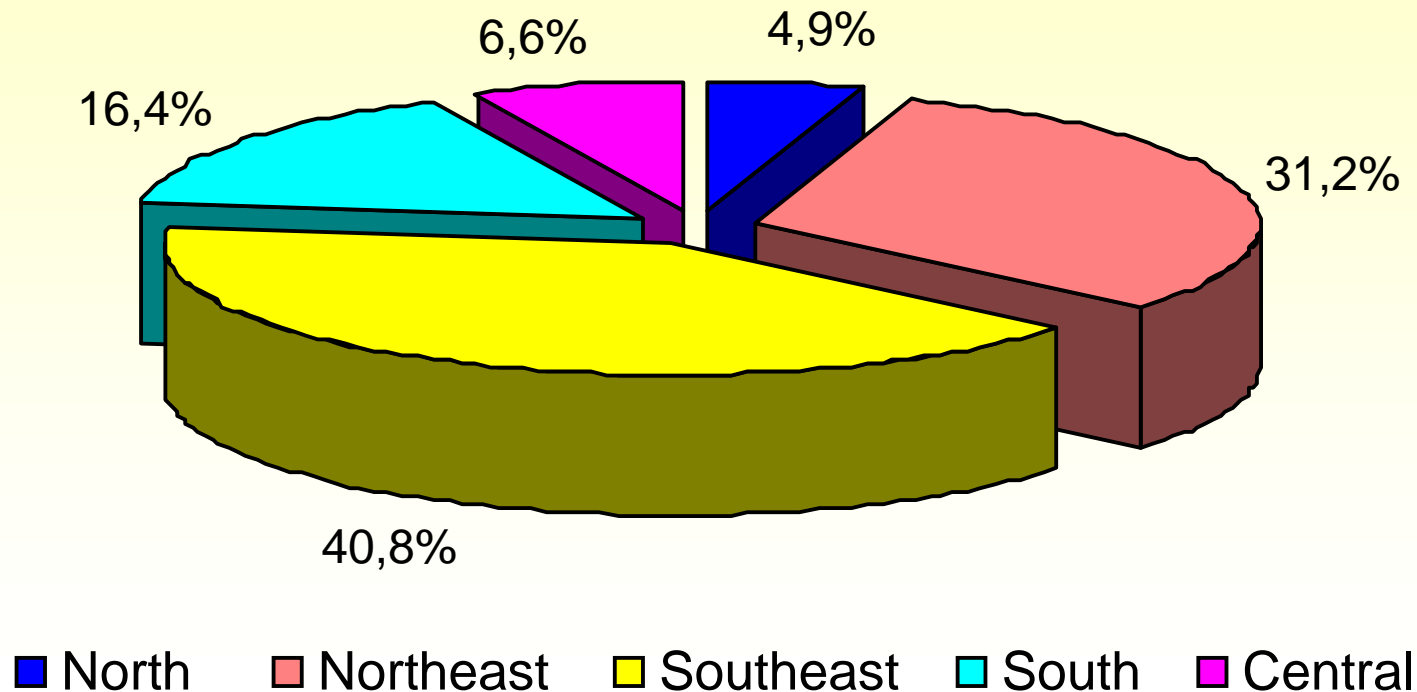
Expenditure for Cervical Cytopathologic Tests. Brazil, 1995 to 2006 *



* Until November 2006; Expenditure in millions (Reais)

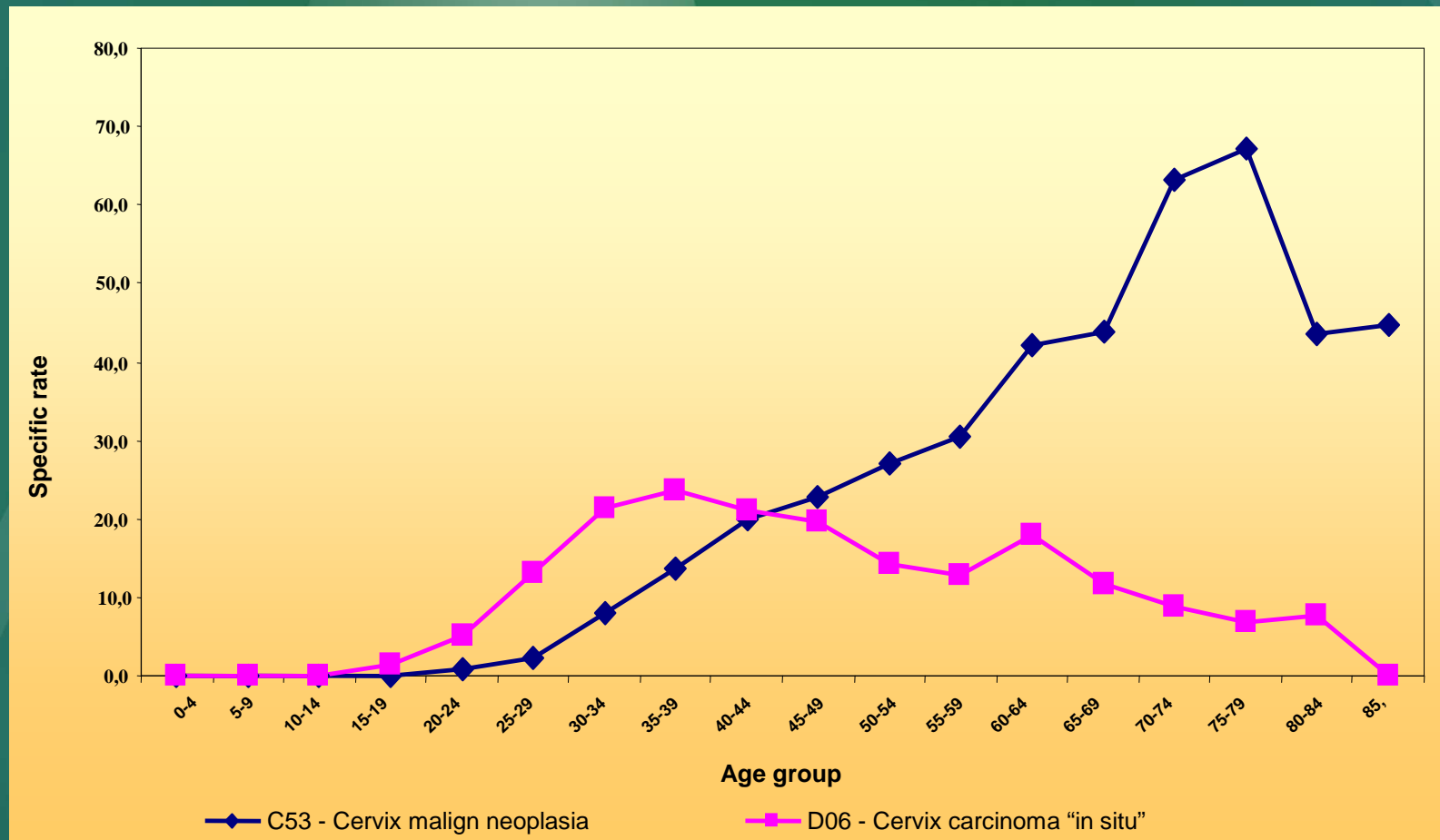
Source: Datasus (www.datasus.gov.br, access on 02/02/2007)

Proportion of Expenditure for Cytopathologic Tests per Region. Brazil, 1995 to 2006



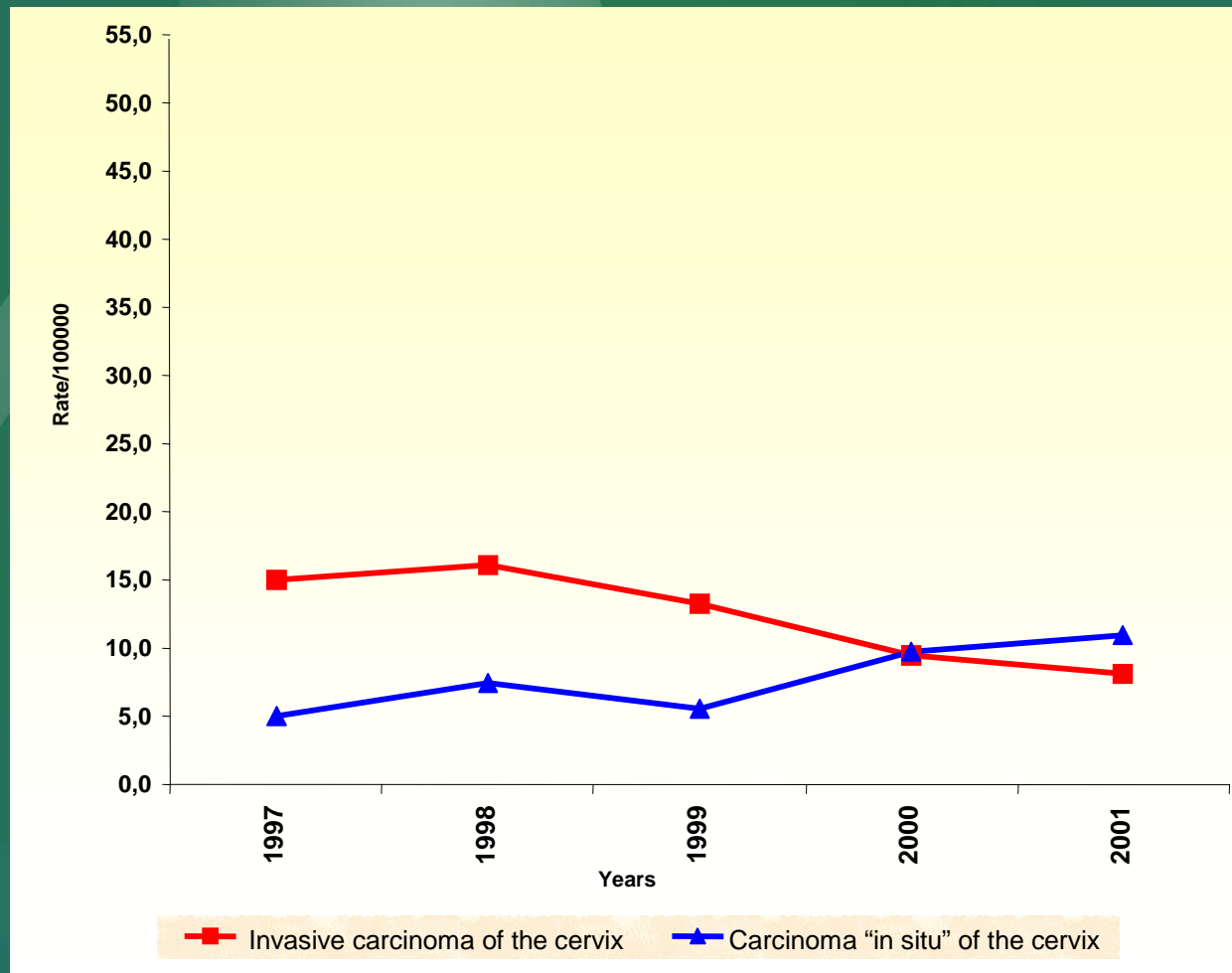
Source: Datasus (www.datasus.gov.br, access on 02/02/2007)

Specific Rates for Cancer of the Cervix Incidence, Salvador, 1998 - 2002



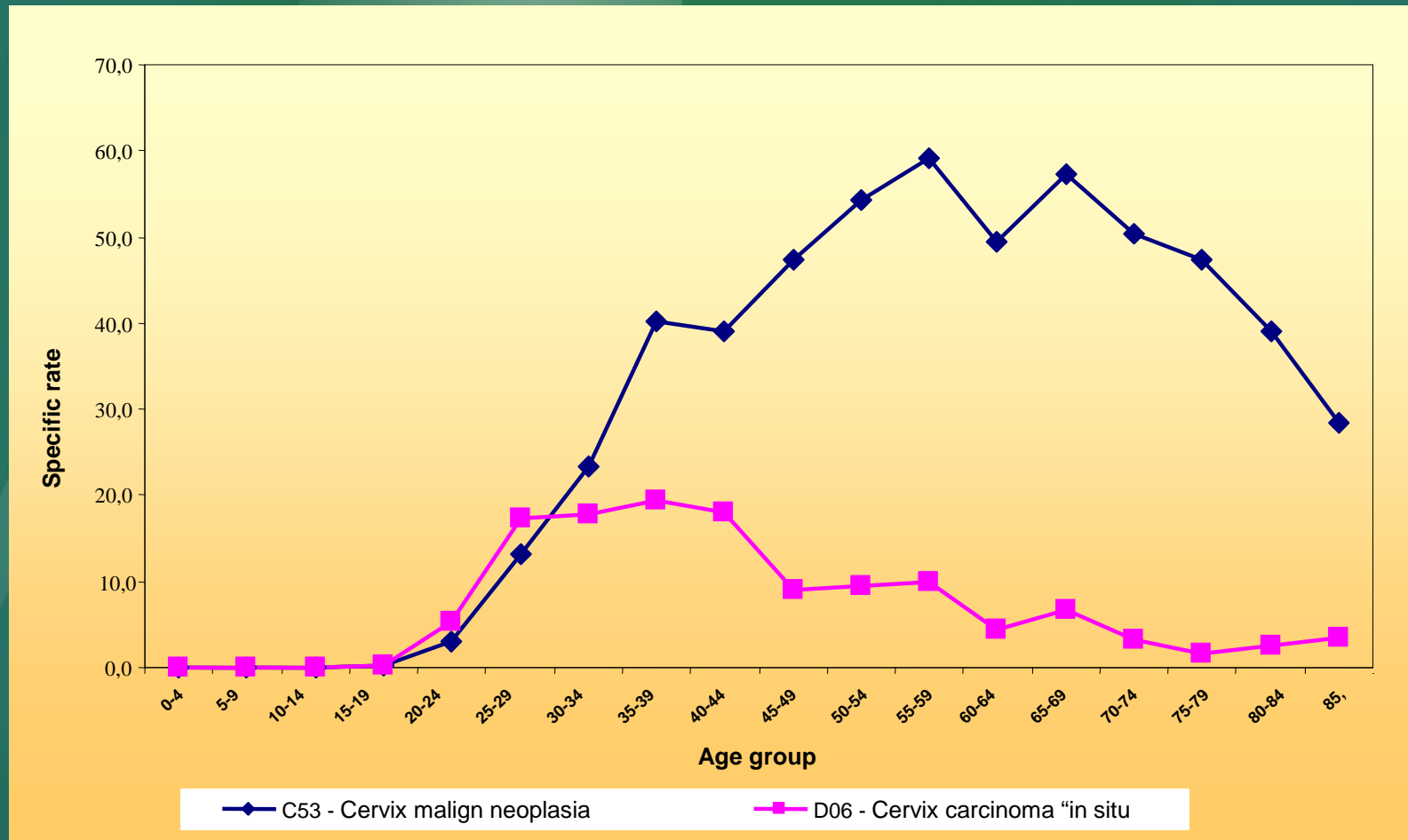
Sources: Dados dos Registros de Câncer Base Populacional
MP/Fundação Instituto Brasileiro de Geografia e Estatística - IBGE
MS/INCA/Conprev/Divisão de Informação

Incidence* of Cancer of the Cervix, Salvador, 1997-2001



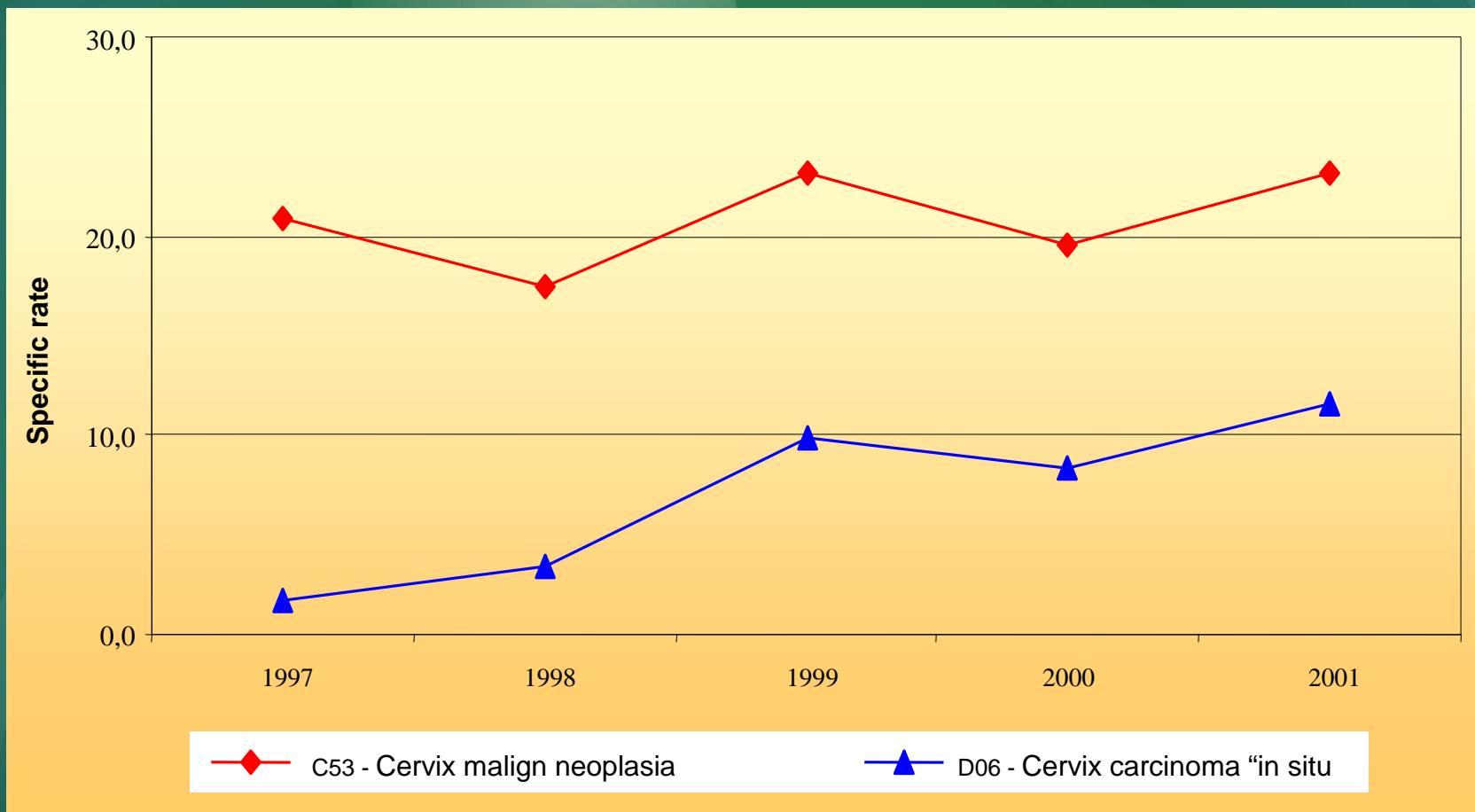
*Adjusted by População Padrão Mundial, modified by Doll et al.(1966)
Source: Registro de Câncer de Base Populacional de Salvador

Specific Rates for Cancer of the Cervix Incidence, Porto Alegre, 1997- 2001.



Sources: *Dados dos Registros de Câncer Base Populacional*
 MP/Fundação Instituto Brasileiro de Geografia e Estatística – IBGE
 MS/INCA/Conprev/Divisão de Informação

Specific Rates for Cancer of the Cervix Incidence, Age Adjusted*. Porto Alegre, 1997- 2001.



*População Padrão Mundial

Sources: *Dados dos Registros de Câncer Base Populacional*
MP/Fundação Instituto Brasileiro de Geografia e Estatística – IBGE
MS/INCA/Conprev/Divisão de Informação



Current Necessities

- **Increase quality of cytopathology test**
- **Increase quality of specimen collection**
- **Guarantee patient follow-up**

Main Challenges

- **Organization of Services**
- **System of Information**
- **Permanent Education**
- **Process and Results' Evaluation**

Cancer in Numbers Worldwide



11 million new cases
7 million deaths



16 million new cases
12 million deaths

60% OF NEW CASES IN LESS DEVELOPED COUNTRIES

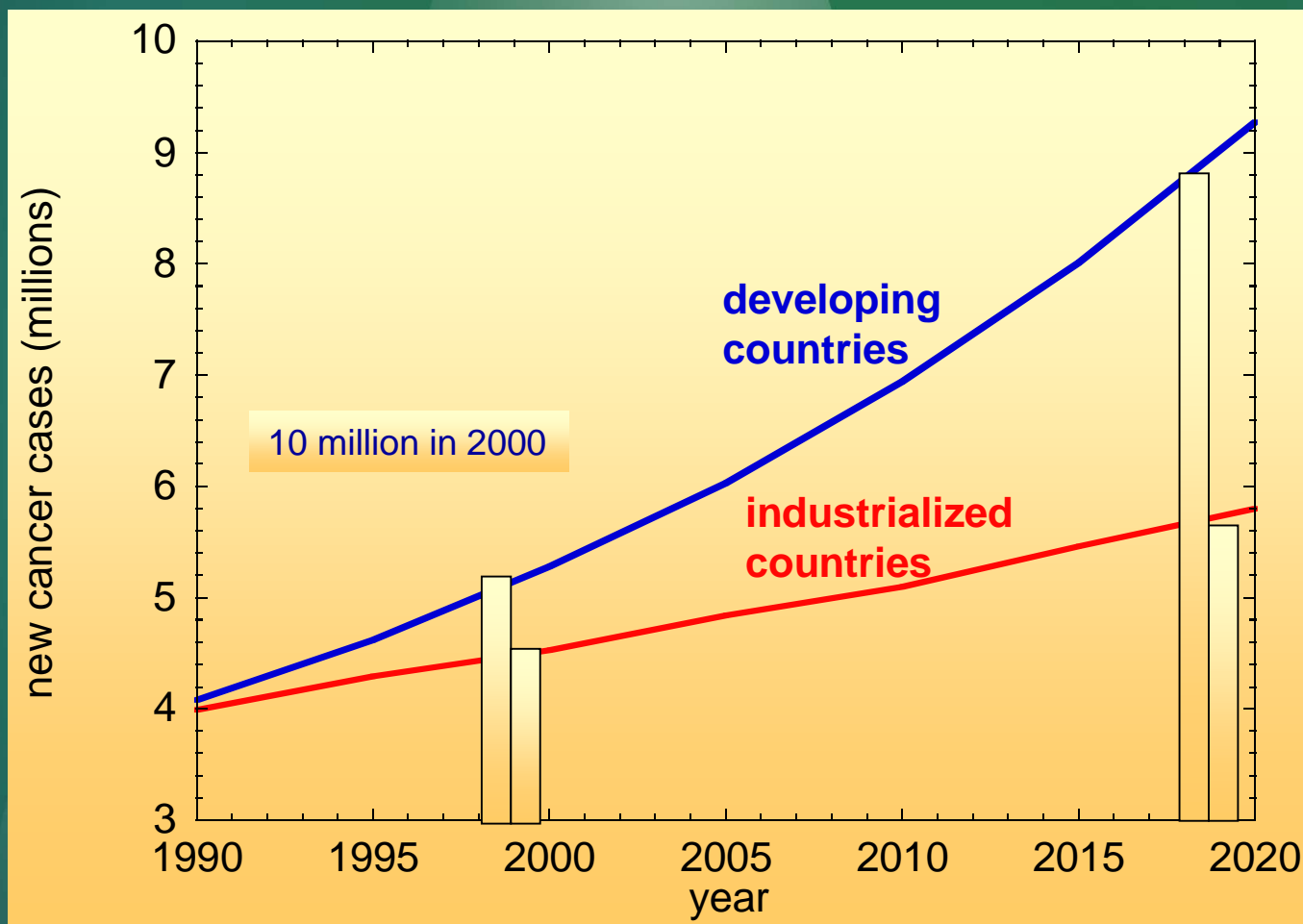
Source: 2005 UICC Report



Ministério
da Saúde



New Cancer Cases per Year



**16 million in
2020**

50% more

WHO (2003)

Brazilian Plan of Action Cancer of the Cervix Control 2005 – 2007

Strategic Guidelines

- **Increase coverage for target population**
- **Guarantee quality of tests**
- **Develop human resources**
- **Strengthen systems of information**
- **Conduct research**
- **Mobilize society**

International Congress

2ND INTERNATIONAL Cancer Control Congress

NOVEMBER 25-28, 2007 RIO DE JANEIRO, BRAZIL



WHO SHOULD ATTEND THIS CONFERENCE?

Participants will include national and international government and non-government cancer control officials, medical, research and allied health professionals, patients/advocates and volunteers who are involved in implementing, planning or contemplating national cancer control strategies, as well as expert speakers.



HOSTED BY:



www.cancercontrol2007.com



Ministério
da Saúde

