

# Global Cancer Research: current situation and challenges

Union for International  
Cancer Control



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## EC :Disclosures

- Leadership Position ( no honoraria) SLACOM, ASCO, UICC
- Consultant or Advisory Role : Bayer; Schering Pharma
- Honoraria : Bayer; Bristol-Myers Squibb ; Fresenius
- Research Funding: Paid to Institution: Poniard Pharmaceuticals ; Daiichi Sankyo Pharma ; Breast Cancer Research Foundation (BCRF)
- **I have not relevant disclosures to make related with this presentation**

# The cancer burden

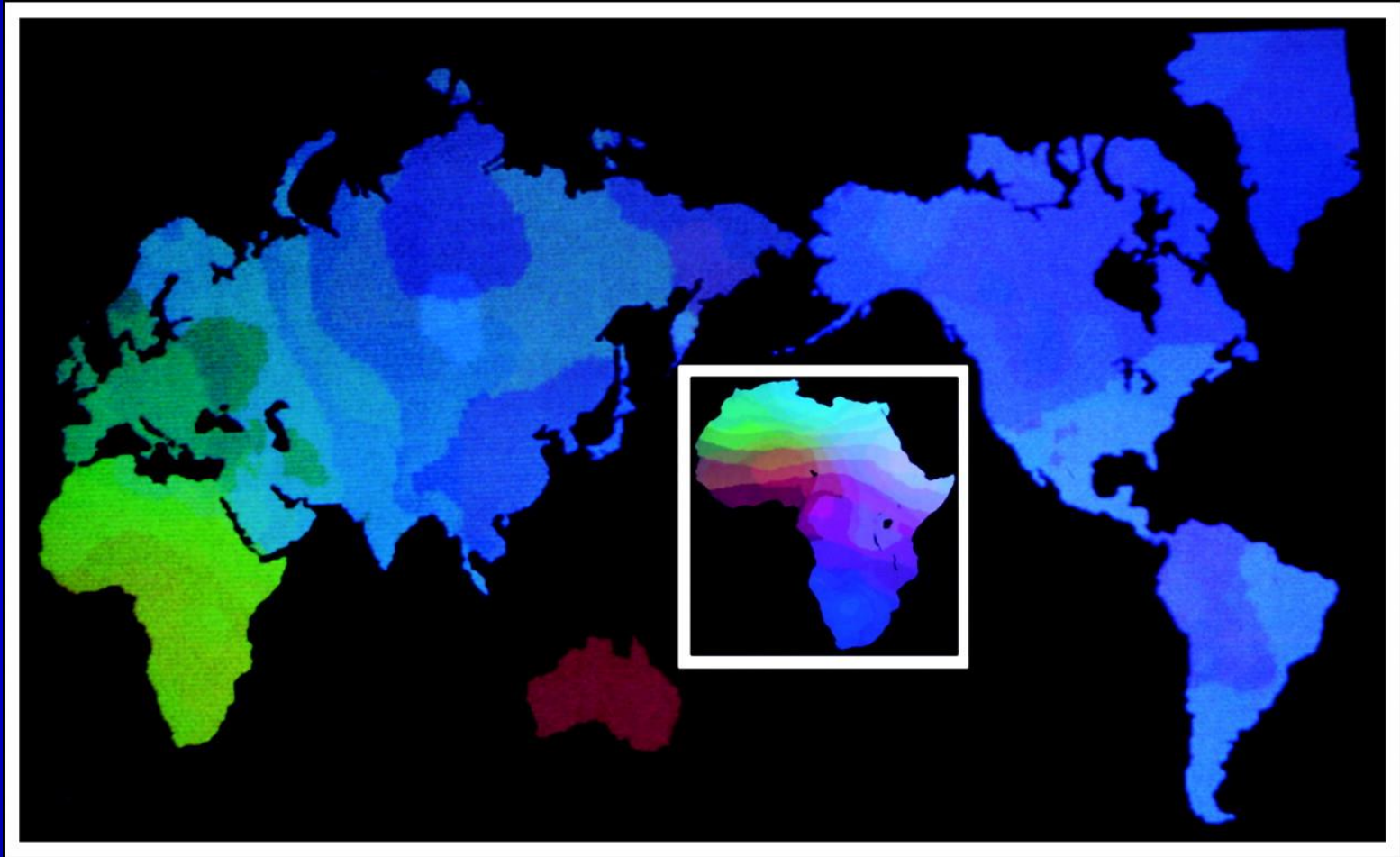


- It is estimated that there will be over 12 million people diagnosed with cancer this year
- Less than 10% will receive proper diagnosis and treatment all over the world

World Cancer Report 2008

**Is it possible to extrapolate  
research results from one  
country or region to another?**

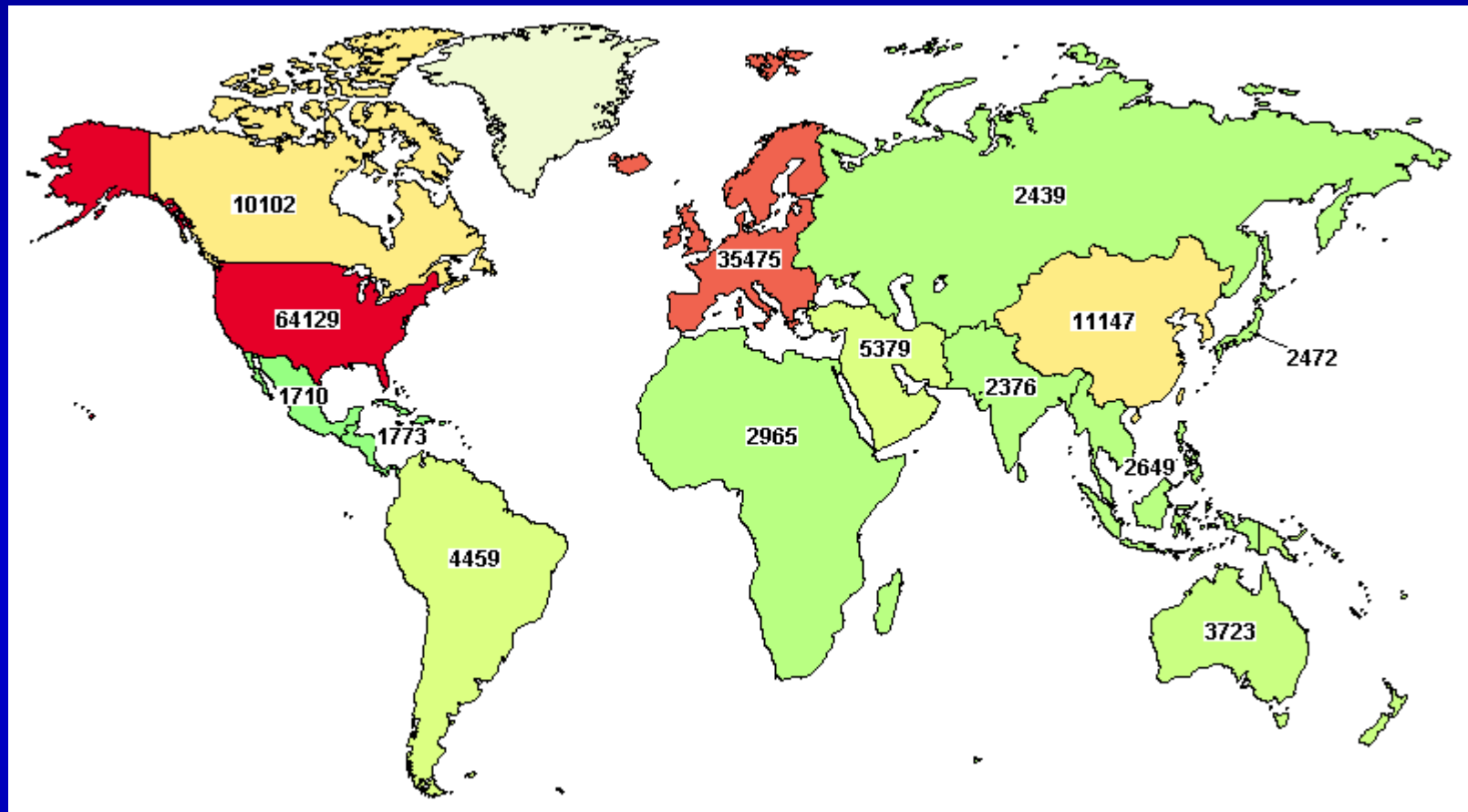
# Human genetic diversity is distributed in gradients among and within continents




Maitland, M. L. et al. J Clin Oncol; 24:2151-2157 2006

**It's today's global picture,  
satisfactory?**

# Clinical Trials Worldwide (2012)



Colors indicate number of studies with locations in that region

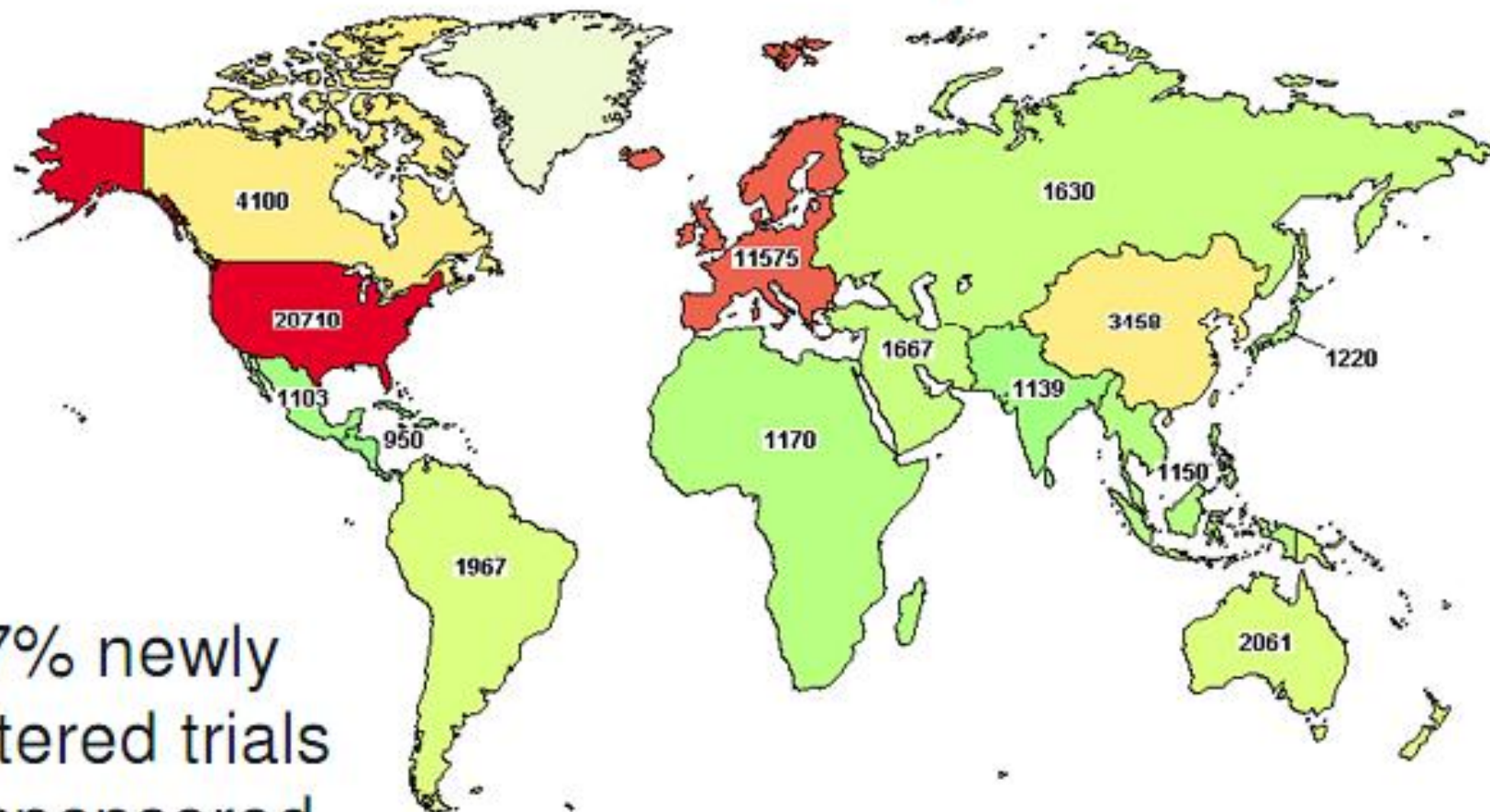
Least  Most

Labels give exact study count

Ref: [www.clinicaltrials.gov](http://www.clinicaltrials.gov)



# Number of Industry Trials



~57% newly  
registered trials  
are sponsored  
by industry

Colors indicate number of studies with locations in that region

Least  Most

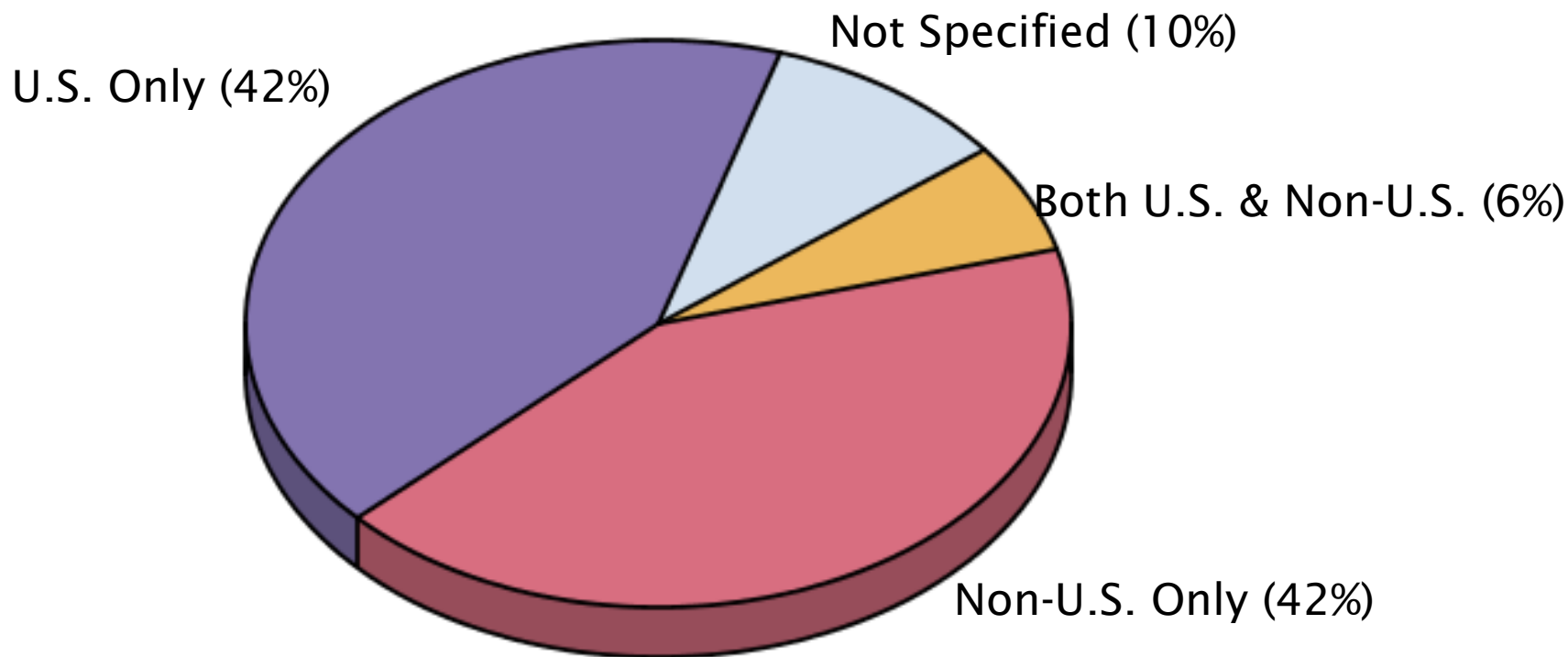
Labels give exact study count

Counts limited to the 40356 studies found by your search.



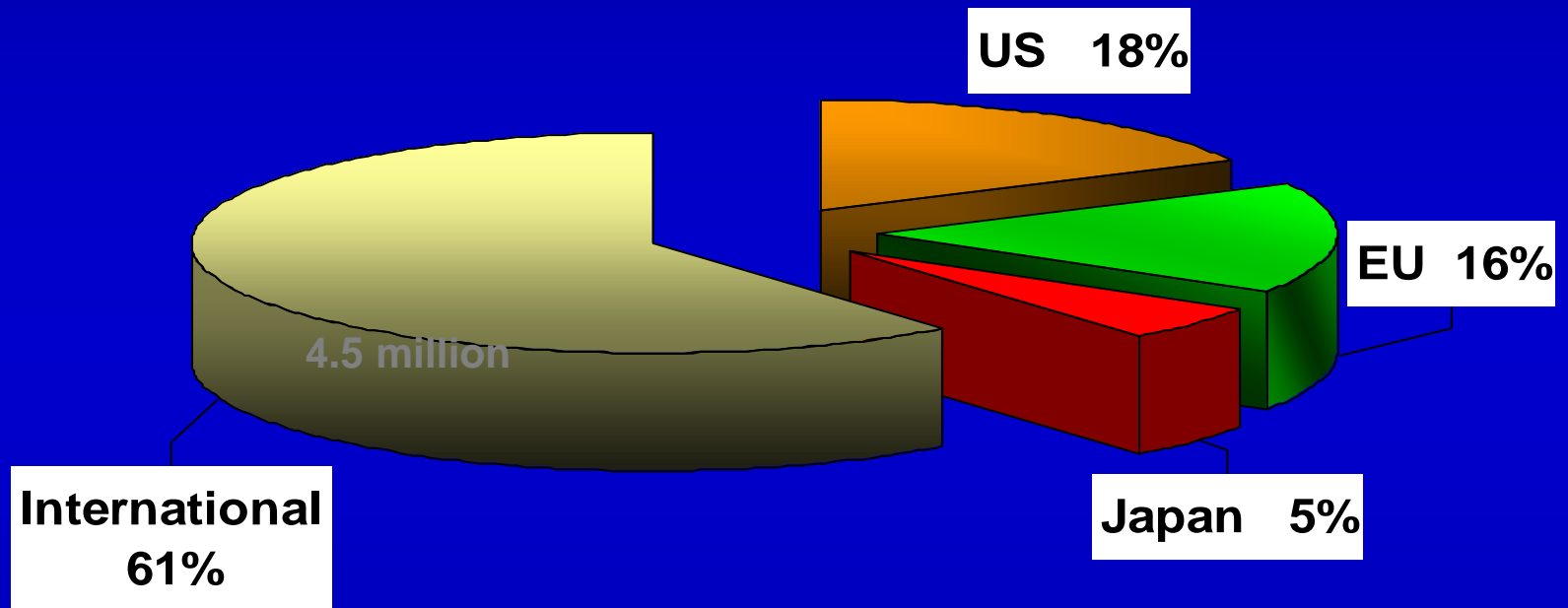
# Distribution of locations for all studies registered on ClinicalTrials.gov

Year **2012** -Total N = 133,128 studies



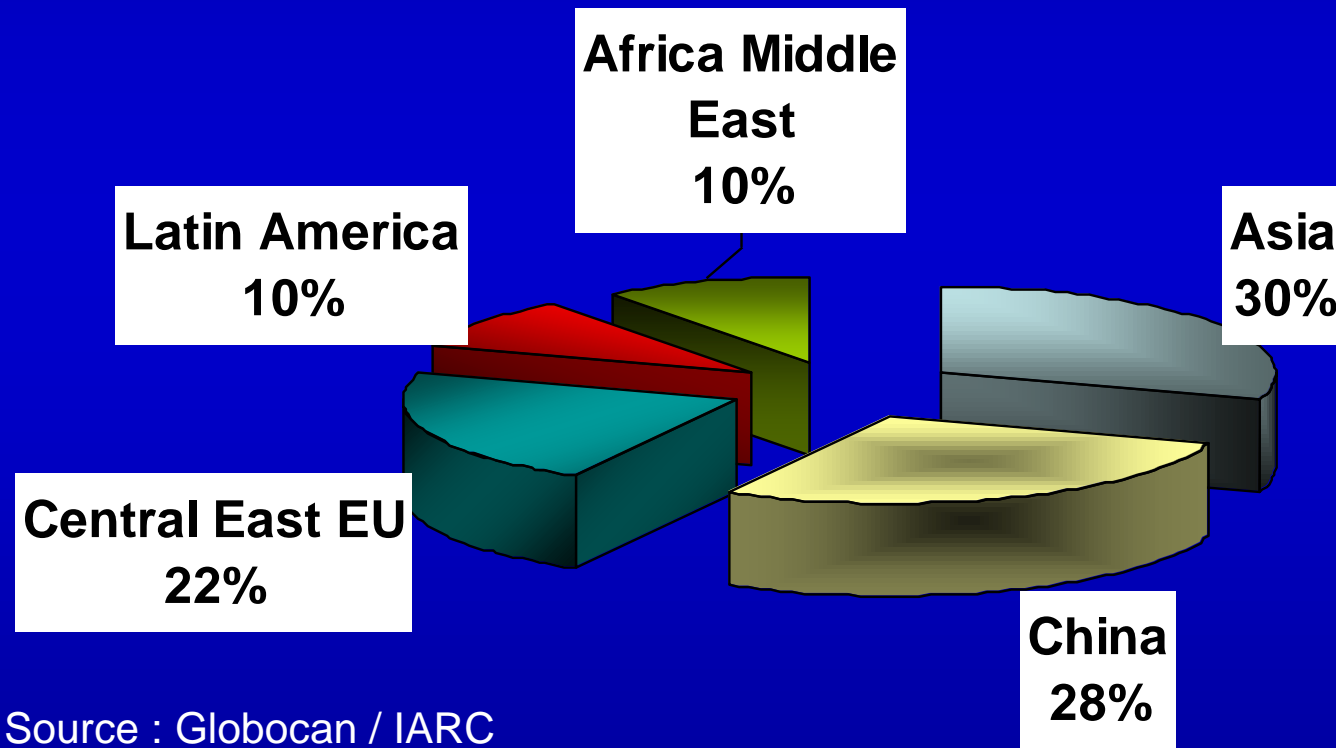
Ref: [www.clinicaltrials.gov](http://www.clinicaltrials.gov)

# Distribution of Patients with Cancer Worldwide



Source : Globocan / IARC

# International Distribution of Patients with Cancer ( excluding US , EU , Japan )



# Cancer Incidence Worldwide

**FEMALE**

## *US & West EU*

- 1 Breast
- 2 Colorectal
- 3 Lung
- 4 Stomach
- 5 Ovary

## *Asia, China , Latin America*

- 1 Breast
- 2 **Cervix**
- 3 **Stomach**
- 4 Colorectal
- 5 Lung

# Cancer Incidence Worldwide

**MALE**

## *US & West EU*

- 1 Lung
- 2 Prostate
- 3 Colorectal
- 4 Stomach
- 5 Bladder

## *Asia, China , Latin America*

- 1 Lung
- 2 **Stomach**
- 3 **Liver**
- 4 **Esophagus**
- 5 Colorectal

# Cancer Incidence

## Asia, China and Latin America

Female

### Asia Pacific

- 1 Breast
- 2 **Cervix**
- 3 **Oral Cavity**
- 4 Colorectal
- 5 Lung

### China

- 1 **Stomach**
- 2 Lung
- 3 Breast
- 4 **Liver**
- 5 Cervix

### Latin America

- 1 Breast
- 2 **Cervix**
- 3 **Stomach**
- 4 Colorectal
- 5 Lung

# Cancer Incidence

## Asia, China and Latin America

Male

### Asia Pacific

- 1 **Oral Cavity**
- 2 Lung
- 3 **Stomach**
- 4 **Liver**
- 5 Colorectal

### China

- 1 **Stomach**
- 2 **Liver**
- 3 Lung
- 4 **Esophagus**
- 5 Colorectal

### Latin America

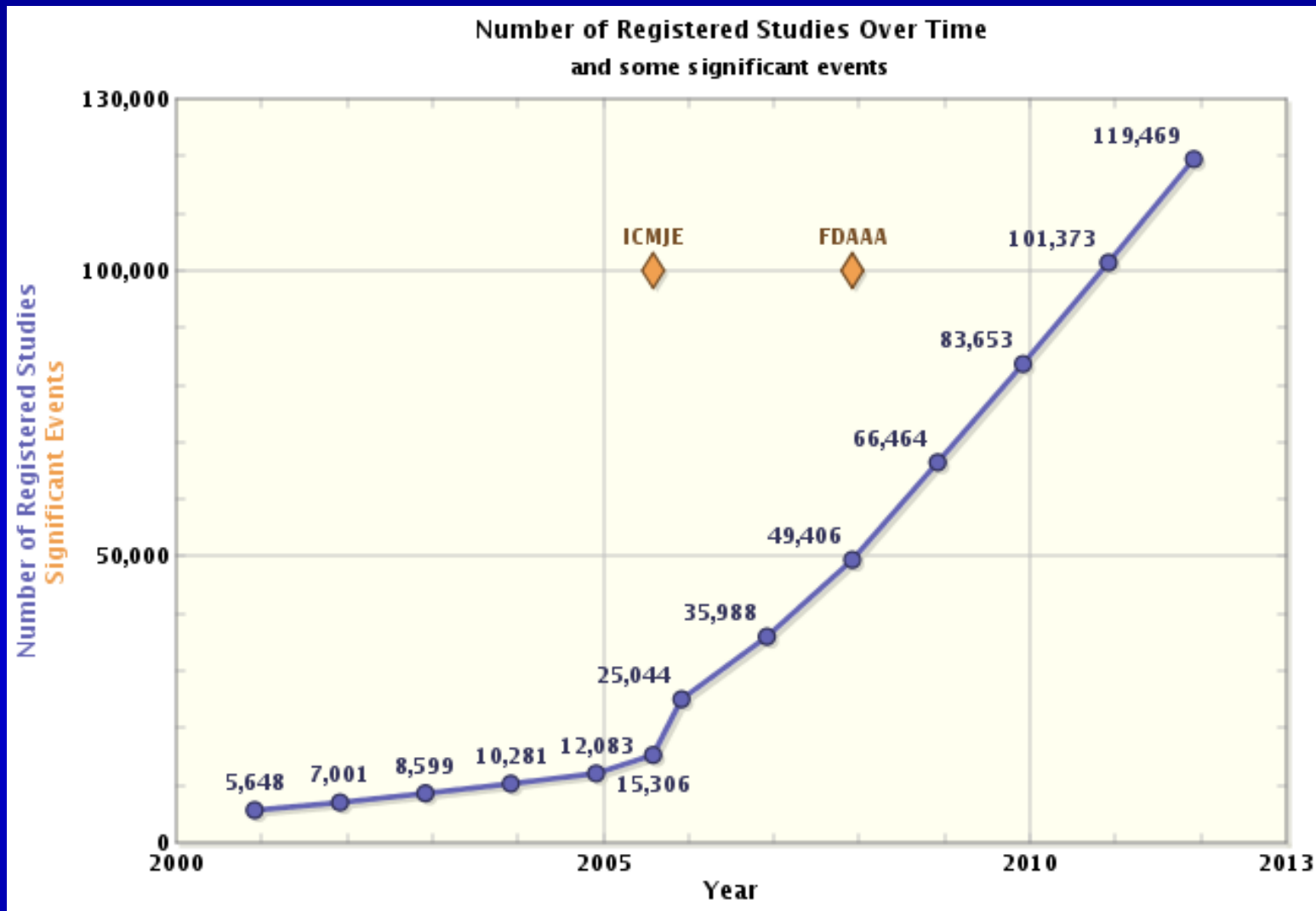
- 1 **Stomach**
- 2 Lung
- 3 Colorectal
- 4 Prostate
- 5 **Oral Cavity**



# Open cancer studies on NCI site (outside US) adapted by ASCO

• Canada	845	• Japan	188
• France	746	• Singapore	135
• Germany	620	• Rusia	132
• UK	606	• India	128
• Italy	495	• Brazil	116
• Spain	380	• Mexico	84
• China	375	• Argentina	82
• S. Korea	323	• New Zeland	73
• Australia	316	• South Africa	68
• Taiwan	301	• Peru	68
• Israel	236		

Ref, [www.clinicaltrials.gov](http://www.clinicaltrials.gov)



**ICMJE:** Indicates when the International Committee of Medical Journal Editors began requiring trial registration as a condition of publication under the Uniform Requirements for Manuscripts Submitted to Biomedical Journals (URM) (September 2005).  
**FDAAA:** Indicates when the expanded registration requirements of FDAAA began and were implemented on ClinicalTrials.gov (December 2007).

# Latin America

# SLACOM Perspective

## Breast Cancer in Latin America.

E. L. Cazap, A. Buzaid, C. Garbino, J. de la Garza,  
F. Orlandi, G. Schwartzmann, C. Vallejos,  
A. Guercovich

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# SLACOM

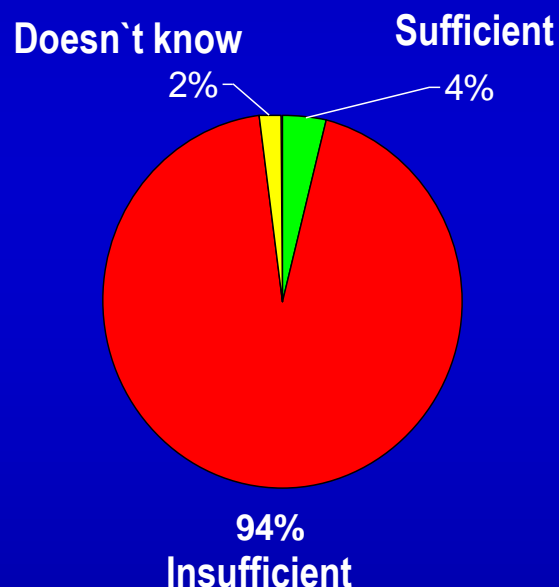
*Supported by a grant from The Breast Cancer  
Research Foundation*

*Cazap et al, Cancer. 2008 Oct 15;113(8 Suppl):2359-65.*

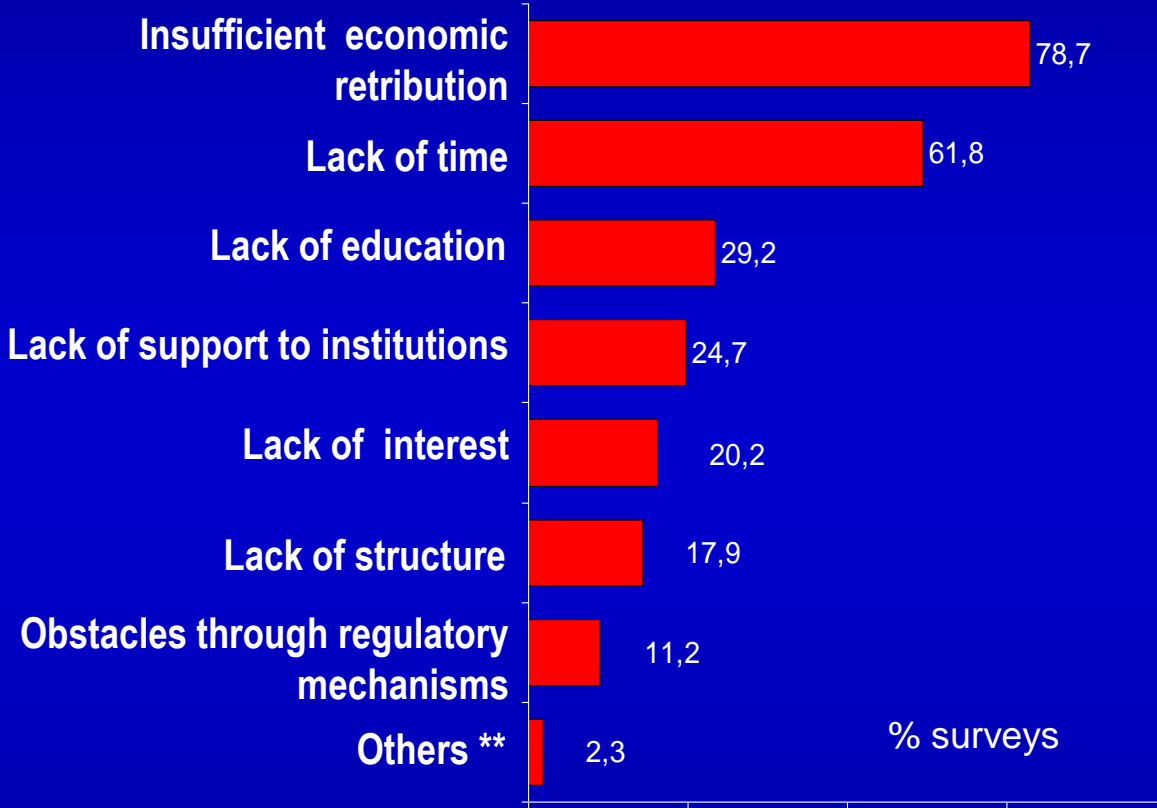
# Clinical-epidemiological research

n=95

How would you qualify the clinical-epidemiologic research development on breast cancer in your country ?



n=89



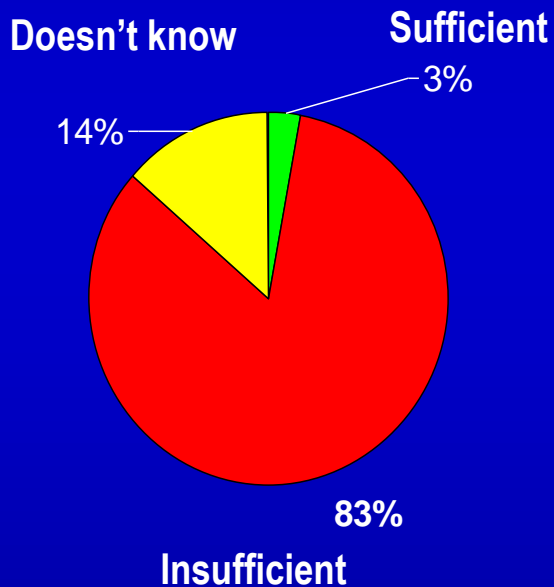
\*\*Others: lack of political decision.

Note: more than one possible reply option.

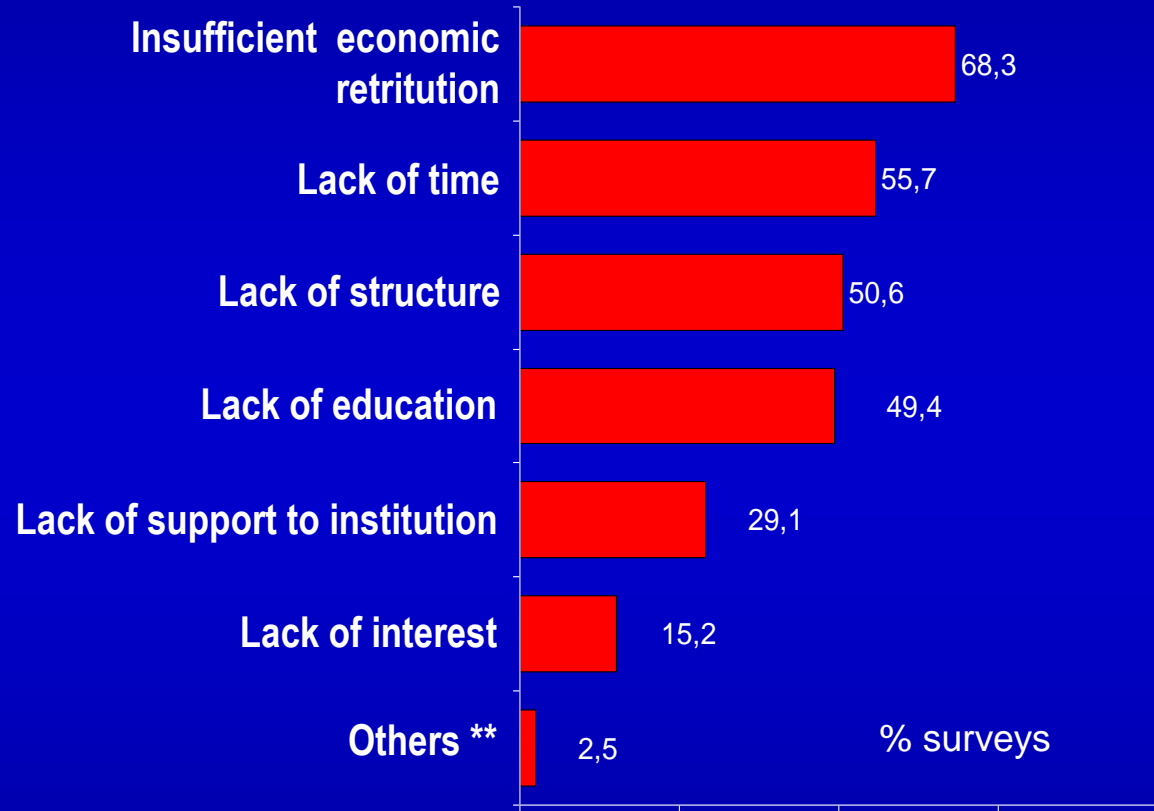
# Basic research

n=95

How would you qualify the development of basic research on breast cancer in your country ?



n=79



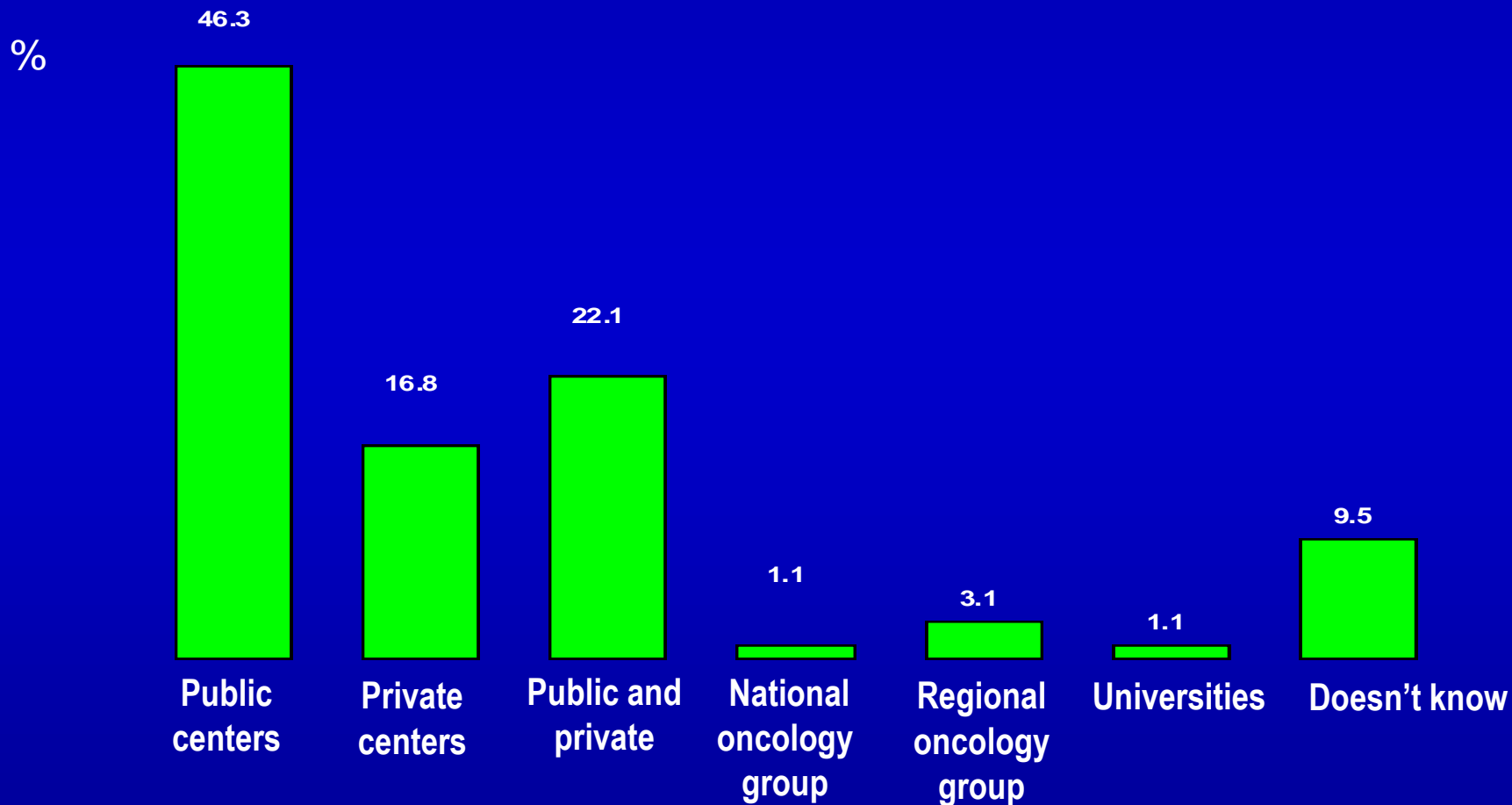
\*\*Others: lack of politic decision.

Note: more than one possible reply option.

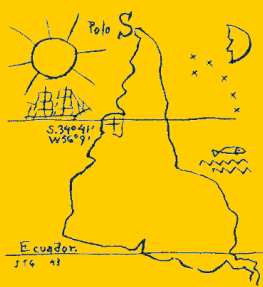
# Clinical-epidemiological research

## Where is it performed in your country?

n=95







# Research and Development State Funding - % GDP (RICYT, 2005)



	2000	2007
Argentina	0.49%	0.51%
Uruguay	0.26%	0.44%
Brazil	1.01%	1.11%
Colombia	0.12%	0.16%
LA and Caribbean	0.50%	0.68%
Spain	0.90%	1.27%
USA	2.70%	2.66%

# Research and Development State Financial- US dollars/inhabitant (RICYT, 2005)



	2000	2007
Argentina	34	34
Uruguay	14	31
Brazil	38	77
LA and Caribbean	23	43
Spain	132	402
USA	938	1218

# Overview of Cancer Issues in Latin America

A Regional Clinical Researchers / Cooperative  
Groups Vision

Dr Bernardo Leone  
GOCS Neuquén  
Grupo Oncológico Cooperativo del Sur



# TYPE OF CLINICAL TRIALS

## **Type 1:**

**Designed and promoted by  
sponsors, offered to the  
investigator.**

## **Type 2:**

**Designed and promoted by the  
investigator (CG),  
offered to sponsors.**

## **Type 3:**

**Designed and promoted by the  
investigator ,  
But not supported by sponsors**

# Independent (Academic) Clinical Research in Latin-America: Problems

- Lack of capacity for lobbying
- Lack of national organization
- Lack of supranational coordination
- Lack of public recognition
- Dependence on pharmaceutical companies
- Funding

# Experimental Therapeutics for Country and for Kind of promoters: profit/non-profit Clinical Trials: 367 (NIH)

Country	Profit (%)	Non-Profit (%)
Argentina	65 (89.0)	8 (10.9)
Brazil	81 (87.0)	12 (12.9)
Mexico	58 (87.8)	8 (12.1)
Peru	36 (72.0)	14 (28.0)
Chile	34 (80.9)	8 (19.0)
Colombia	21 (95.4)	1 (0.4)
Ecuador	4 (100)	-
Honduras	-	2 (100)
Venezuela	7 (100)	-
Uruguay	3 (75)	1 (25.0)
Costa Rica	4 (100)	-

# Experimental Therapeutics Phase for Clinical Trials: 367 (NIH)

Phase	CS	%
Phase I	11	2.9
Phase II	77	20.9
Phase III	242	65.9
Phase IV	16	4.3
Non Phase Specified	21	5.7



# Clinical Cancer Research

## Reasons to conduct Clinical Trials Globally

### Global Level

- Demographics
- Epidemiology
- Ethnicity  
issues
- Faster & Good  
quality

### Local Level

- Knowledge transfer
- Technology transfer
- Develop local expertise
- Global & Local  
publications

# Clinical Cancer Research

## Reasons to conduct Clinical Trials Globally

**Regulatory  
Environment**

### **Improvements in:**

- **Good Clinical Practices**
- **Dossier Review**
- **Regulatory Authorization**
- **Quality Control Systems**
- **Established Processes**

# Future possible scenarios



- To change the drug patent's system
- To implement new ways of compensation to pharma for R & D
- To change the role and participation of CRO's
- To encourage independent and publicly funded research
- To develop hybrid systems and consortiums

# nature

## Keeping faith with trial volunteers

- Increased partnership between academia, independent groups and industry
- Regional / international partnerships
- Improvement of independent and publicly funded trials
- Trials design according to different populations needs
- Always looking for better outcomes for patients

# Acknowledgments

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