



GLOBAL ACTION PLAN

OUR LATIN AMERICAN DESK MEETING IN FLORIDA 2013



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Global Data on Visual Impairment. Geneva 2010



| | | Blindness | Low Vision | Total |
|-----------|-----------------------|---------------|---------------|---------------|
| Region | Population (millions) | # in millions | # in millions | # in millions |
| America | 915 | 3 | 23 | 26 |
| Worldwide | 6637 | 39 | 246 | 285 |



Barriers to GAP in Latin America?

1. LACK OF DATA
2. SOCIOECONOMIC LEVEL
3. LACK OF EDUCATION
4. POVERTY
5. LACK OF OPHTHALMOLOGISTS
6. RURAL POPULATION
7. AGING POPULATION
8. OTHER HEALTH PRIORITIES PAHO
9. APPROPRIATE TECHNOLOGY
10. DIABETES EPIDEMIC
11. OPTOMETRY VS OPHTHALMOLOGY
12. UNIVERSAL HEALTH CHALLENGE

BARRIER 1-Latin America is so Diverse

Data is needed



BARRIER DOWN- RAAB'S IN ALMOST EVERY COUNTRY

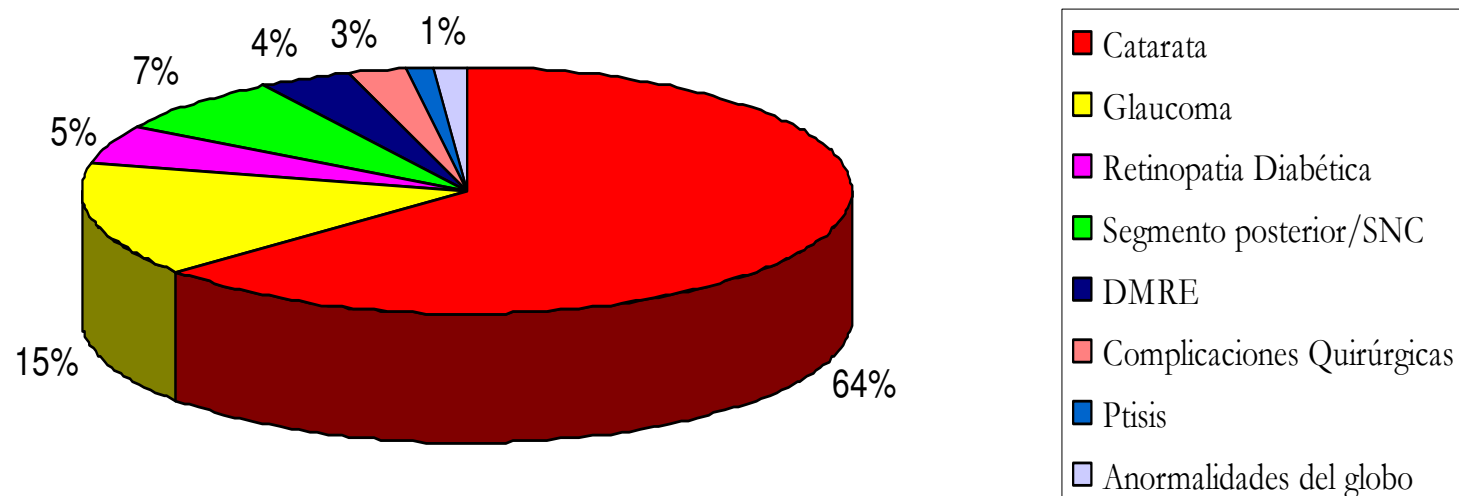


**KUDOS TO HANS
LIMBURG!**

DOMINICAN REPUBLIC RAAB-2008

Typical RAAB of the Americas

Main Causes of Blindness



Blindness Survey
RAAB 2008,
Dominican Republic

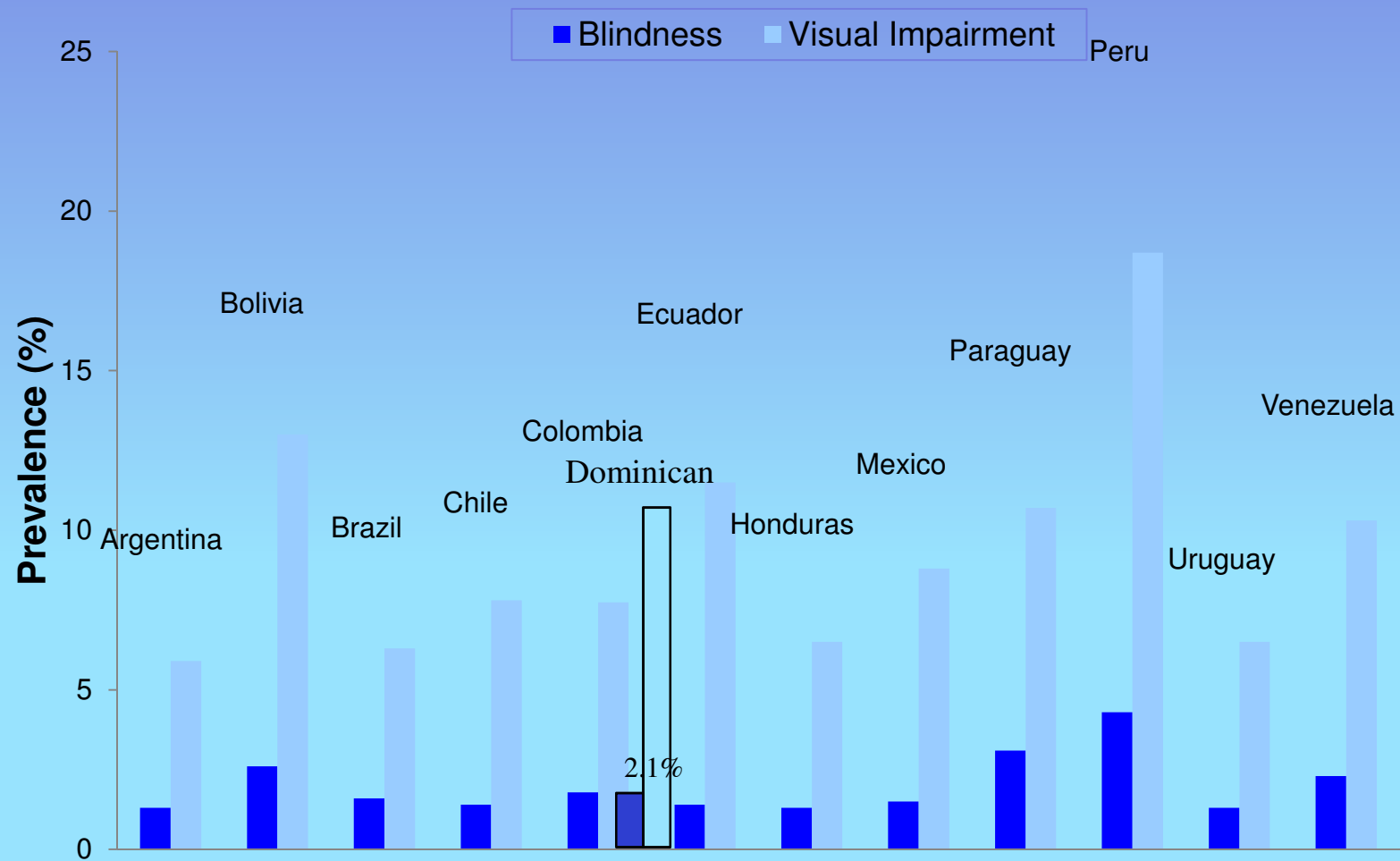
Prevalence of Blindness Data from RAAB Studies Performed by Hans Limburg

| Country | Best Corrected Visual Acuity <20/400 | Visual Acuity as it Presents <20/400 (IC 95%) |
|-------------------------|---|---|
| •Cuba | 1.8 (1.2-2.4%) | 1.9 (1.3-2.5%) |
| •Paraguay | 1.3 (0.3-2.3%) | 3.1 (2.2-4.4%) |
| •Dominican •Republic | 1.9 (1.5-2.3%) | 2.7(1.6-2.5%) |
| •Venezuela | 2.0 (1.5-2.5%) | 2.3 (1.7-2.8%) |
| •Argentina | 1.0 (0.7-1.3%) | 1.3 (0.9-1.6%) |
| •Brazil | 1.4 (0.7-2.1%) | 1.6 (1.0-2.2%) |
| •México | 1.3 (0.9-1.7%) | 1.5 (1.1-1.9%) |
| •Chile | 1.2 (0.7-1.7%) | 1.4 (0.8-1.9%) |
| •Perú | 2.6 (2.1-3.1%) | 3.6 (2.9-4.3%) |
| •Guatemala | 3.5 (2.9-4.2%) | 3.6 (2.9-4.3%) |



Latin America

Prevalence of Blindness/Visual Impairment





BARRIER 2- Blindness Correlates Inversely to Socioeconomic Conditions and Health as a Priority

| Economy/Health as a Priority | % Blind | No. Blind per Million |
|------------------------------|---------|-----------------------|
| Good | 0.25 | 2,500 |
| OK | 0.50 | 5,000 |
| POOR | 0.75 | 7,500 |
| Very Poor | 1.00+ | 10,000+ |

BARRIER 3- Literacy Rates Correlate with Cataract Surgical Rates



To get from here to there
you need: Education



NEW MILLENIUM OBJECTIVES

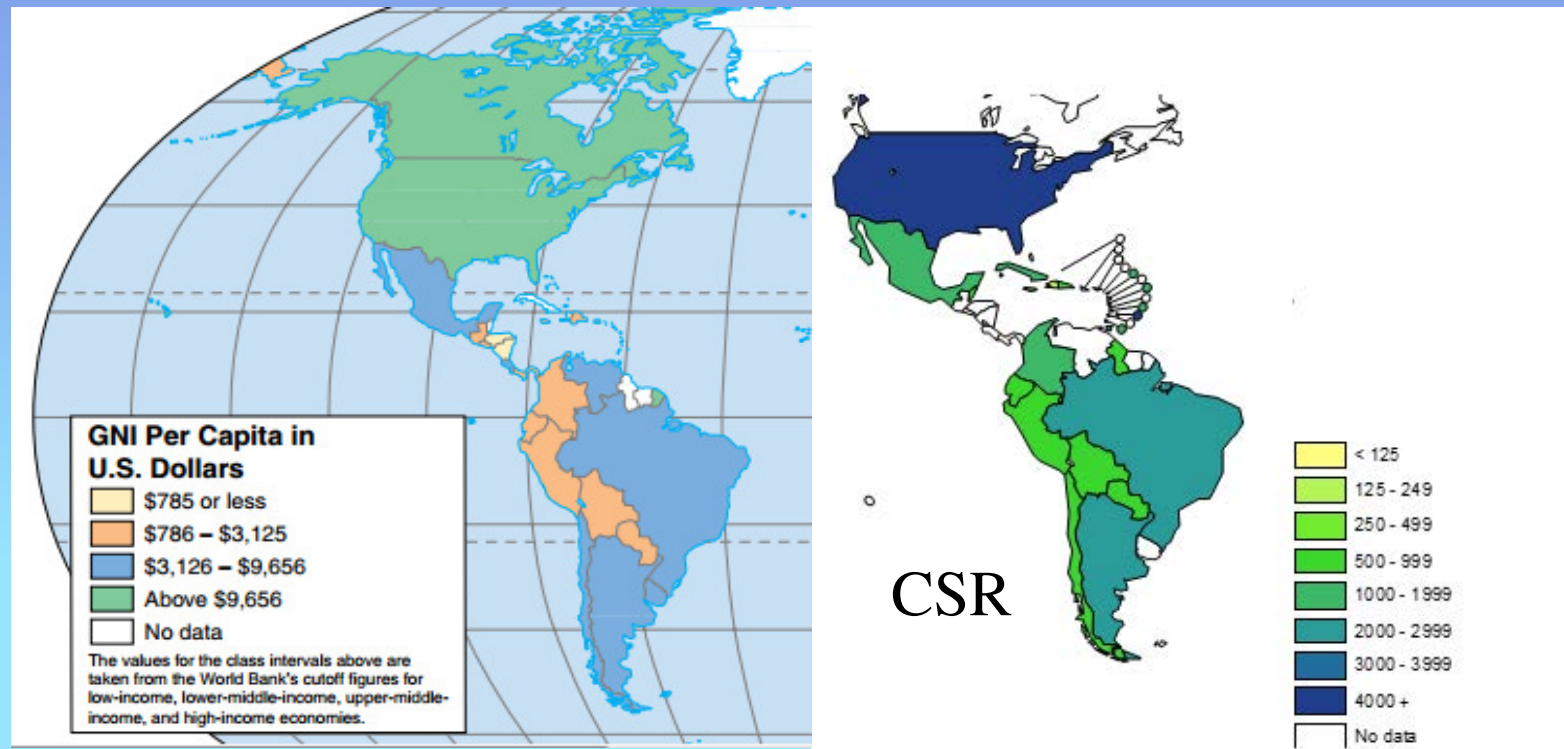


4 - 1. Objetivos de Desarrollo del Milenio. Versión de 2011



BARRIER 4

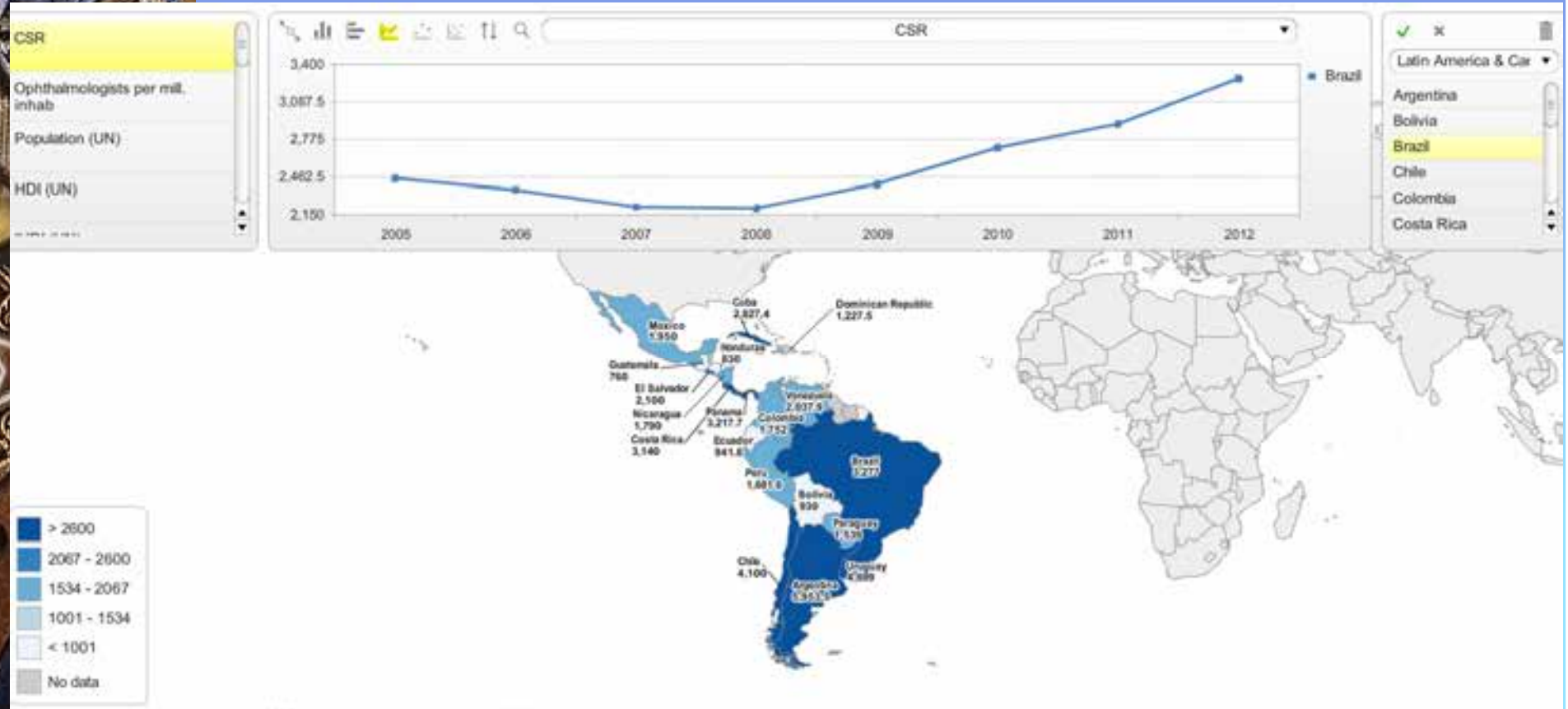
Blindness Correlates with Per Capita Income



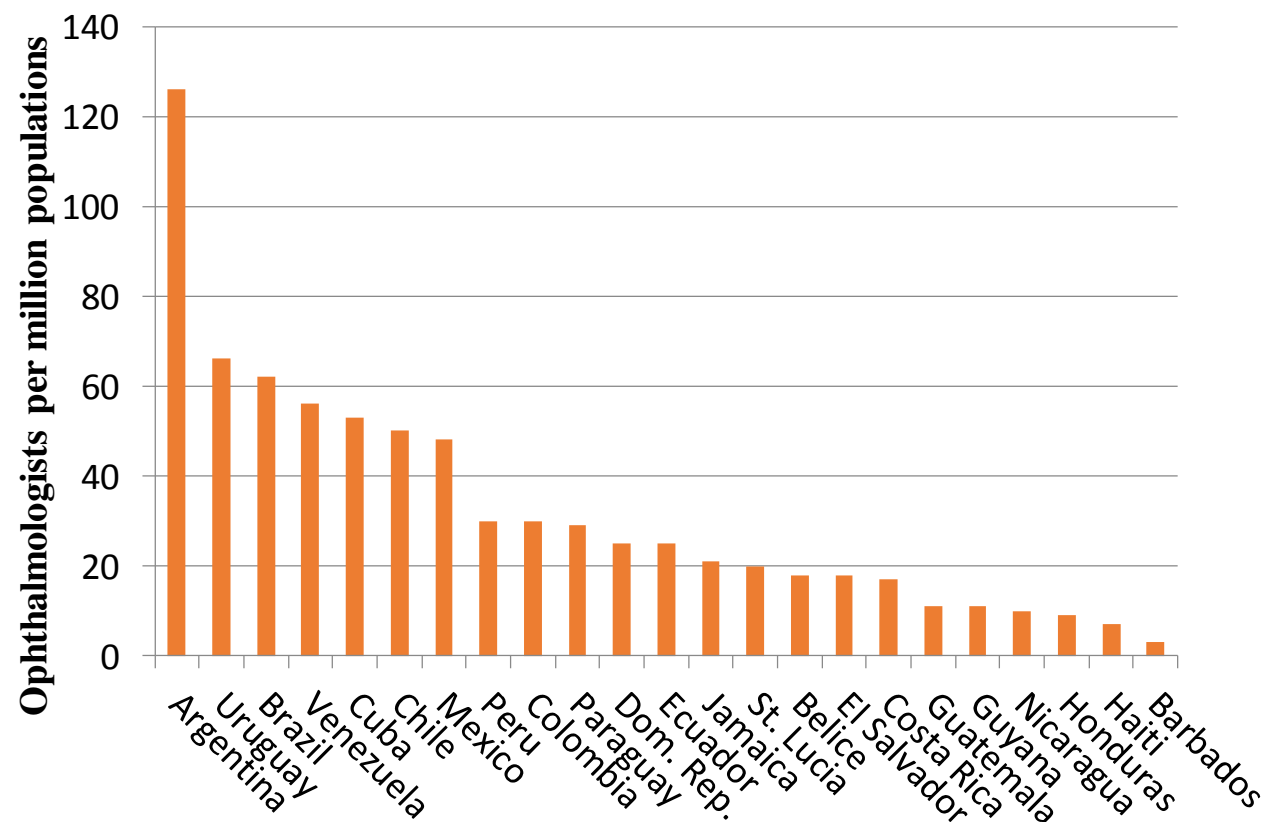
Barrier Down- CSR's are improving across the board in almost every country in Latin America
For the Interactive Map of the Americas Visit [Vision2020-la](#)

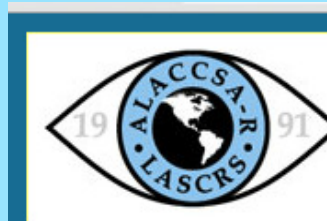
| Country | Price for IOL Surgery Private Sector (UNESCO) 2008 | Ophthalmologists per mill. inhab. 2011 | Ophthalmologists per mill. inhab. 2012 | CSR 2006 | CSR 2006 | CSR 2007 | CSR 2008 | CSR 2009 | CSR 2010 | CSR 2011 | CSR 2012 | % CSR Change 2006/2012 |
|--------------------|--|--|--|----------|----------|----------|----------|----------|----------|----------|----------|------------------------|
| Argentina | 1245 | 142 | 146 | 1769 | 2100 | 2089 | 2350 | 2650 | 2622 | 3100 | 3953 | +226.34% |
| Bolivia | 695 | 26 | 34 | 563 | 602 | 667 | 800 | 900 | 930 | 930 | 930 | +65.18% |
| Brazil | 1278 | 70 | 74 | 2448 | 2352 | 2212 | 2200 | 2400 | 2700 | 2900 | 3277 | +33.86% |
| Chile | 1167 | 44 | 46 | 1751 | 1930 | 2132 | 2820 | 3200 | 3450 | 3789 | 4100 | +234.25% |
| Colombia | 582 | 42 | 42 | 1189 | 1350 | 1278 | 1350 | 1510 | 1590 | 1752 | 1752 | +47.35% |
| Costa Rica | 1200 | 31 | 28 | 1400 | 2049 | 2144 | 2800 | 2950 | 3000 | 3200 | 3140 | +124.28% |
| Cuba | - | 160 | 67 | 1600 | 2219 | 3125 | 2324 | 2037 | 2428 | 2708 | 2827 | +76.71% |
| Dominican Republic | - | 35 | 42 | 710 | 682 | 779 | 900 | 1000 | 1247 | 1432 | 1227 | +72.89% |
| Ecuador | 1000 | 38 | 25 | 801 | 831 | 856 | 1050 | 1350 | 1490 | 1737 | 942 | +17.58% |
| El Salvador | 750 | 25 | 27 | 1104 | 1151 | 1411 | 1050 | 1100 | 1150 | 1743 | 2100 | +90.22% |
| Guatemala | 700 | 16 | 16 | 824 | 900 | 875 | 900 | 920 | 990 | 800 | 800 | -2.81% |
| Honduras | 800 | 12 | 13 | 940 | 558 | 631 | 750 | 700 | 800 | 878 | 830 | -11.70% |
| Mexico | - | 45 | 47 | 958 | 1200 | 1138 | 1300 | 1450 | 1550 | 1720 | 1950 | +108.35% |
| Nicaragua | 700 | 20 | 17 | 460 | 822 | 999 | 1300 | 1430 | 1610 | 1790 | 1790 | +289.13% |
| Panama | 1925 | 45 | 32 | - | 1180 | 1159 | 1197 | 1321 | 1693 | 1882 | 3218 | +172.88% |
| Paraguay | 1200 | 31 | 32 | 800 | 895 | 957 | 1000 | 1100 | 1311 | 1351 | 1539 | +190.25% |
| Peru | 938 | 38 | 34 | 761 | 863 | 880 | 1429 | 1572 | 1400 | 1599 | 1682 | +120.97% |
| Uruguay | 1420 | 57 | 57 | - | 2000 | 1898 | 3933 | 4150 | 4419 | 4699 | 4699 | +134.95% |
| Venezuela | 1135 | 59 | 41 | 960 | 1646 | 1754 | 2750 | 2950 | 3483 | 3650 | 2038 | +112.28% |

Barrier Down- interactive map of CSR's thanks to IAPB

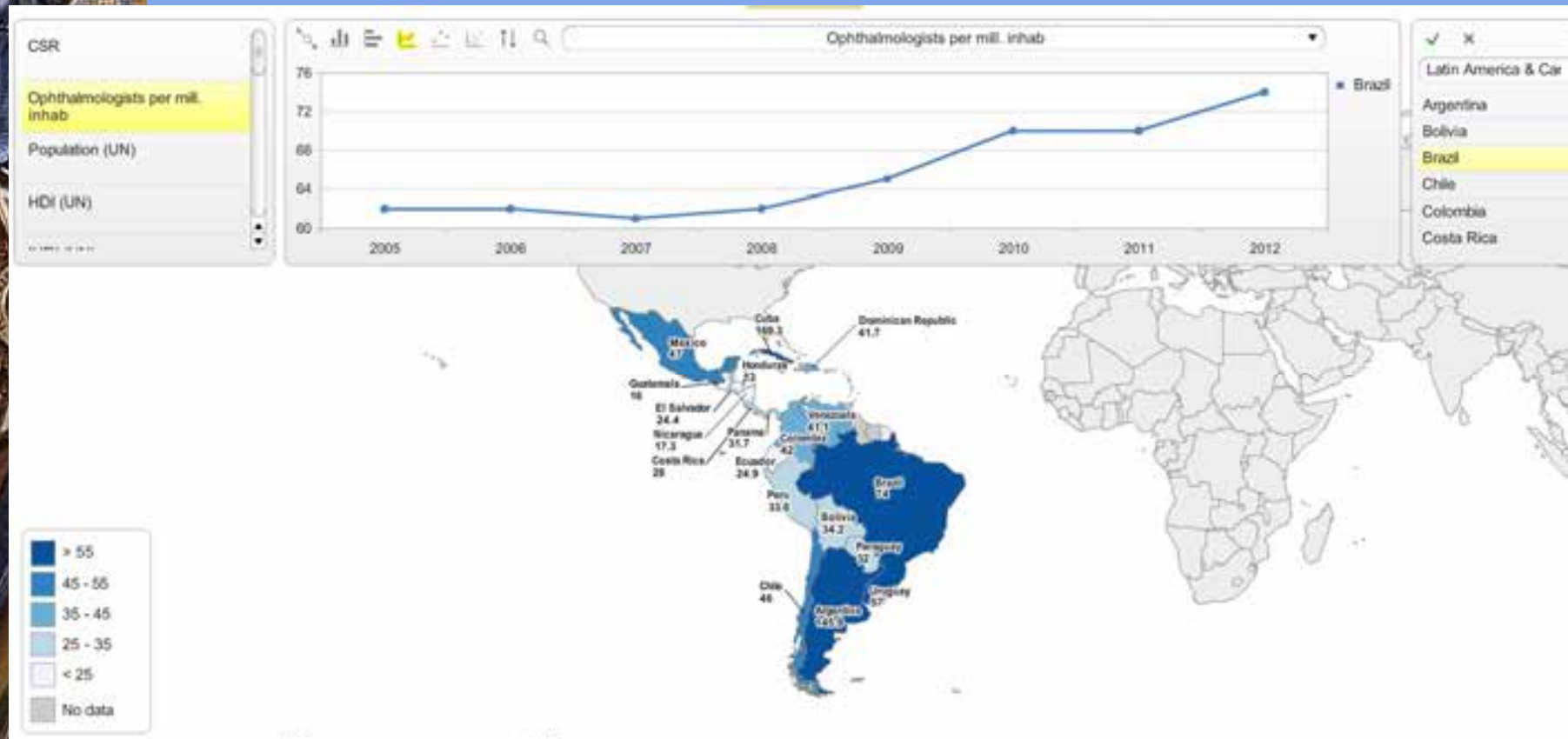


Barrier 5- Not enough Ophthalmologists

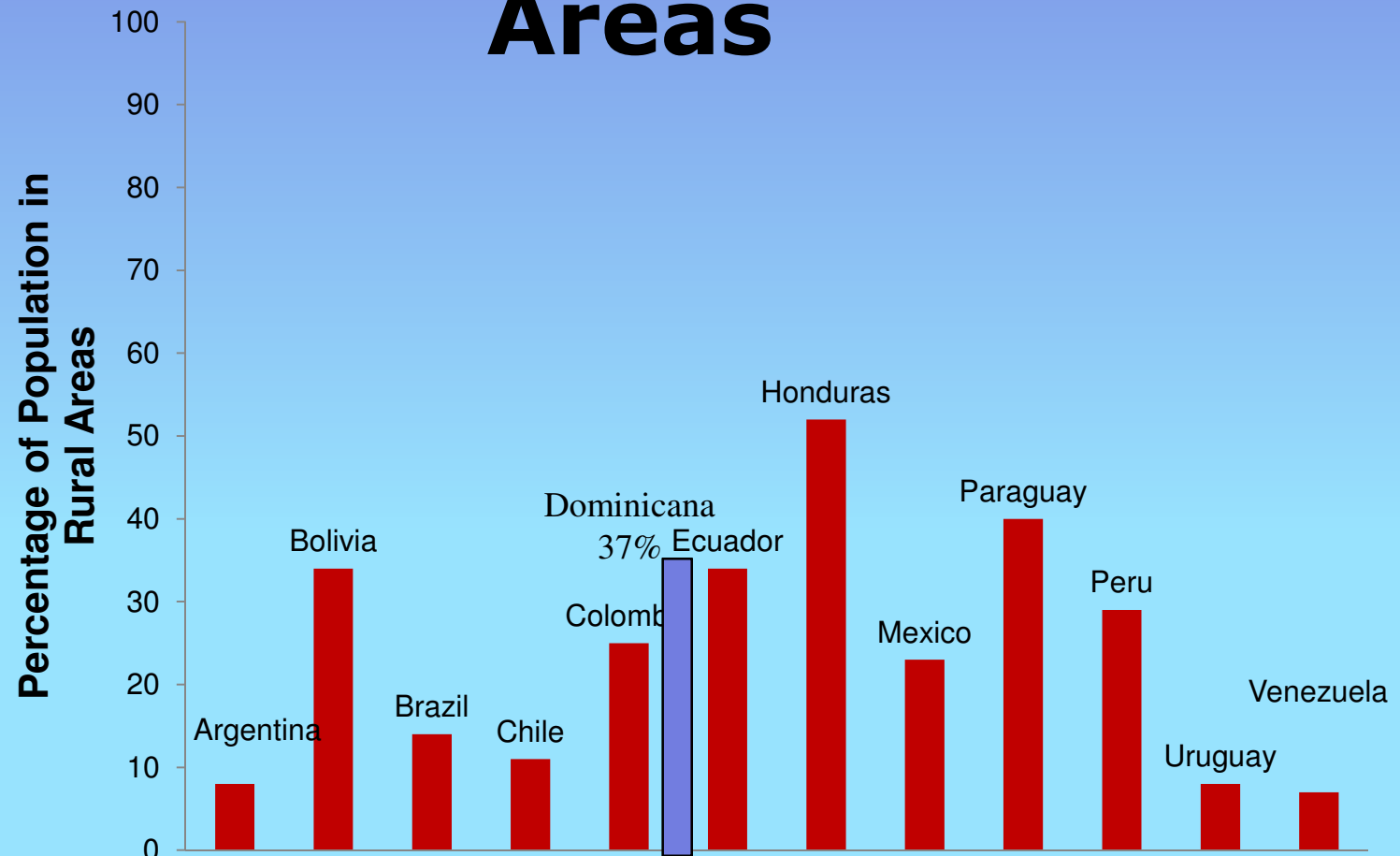




Barrier Down- Ophthalmologists per Million Increasing



Barrier 6 - Percentage of Population Living in Rural Areas



A Mission in the Amazon River of Peru



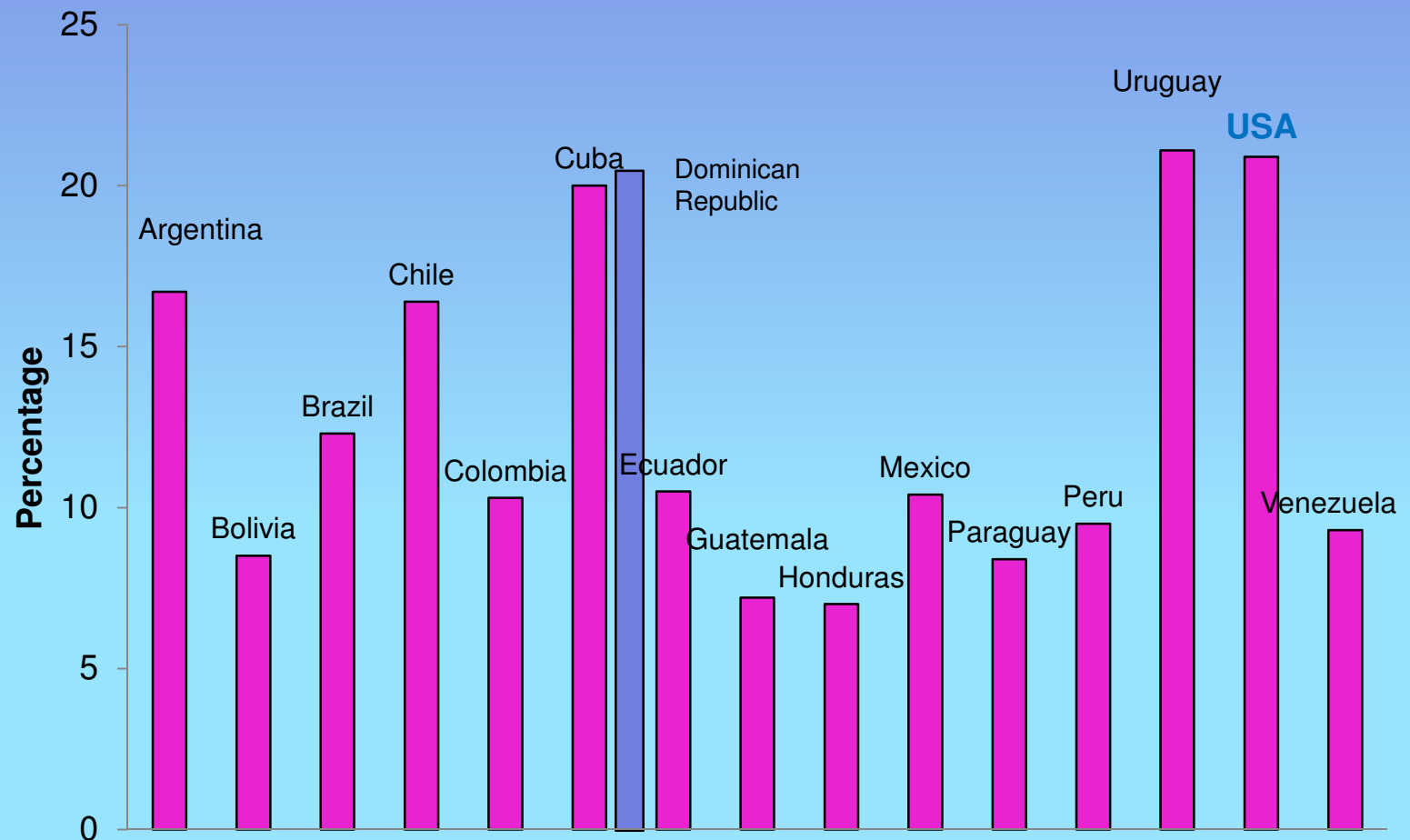
Operating Theater Inside the Boat



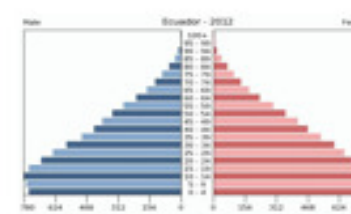
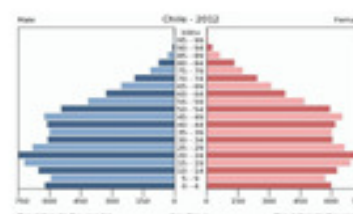
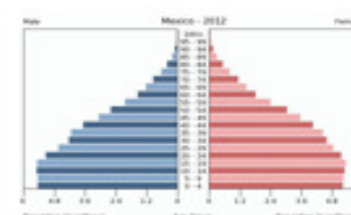
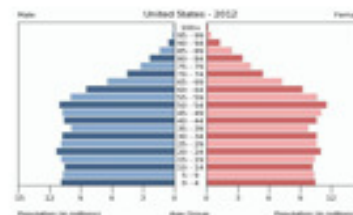
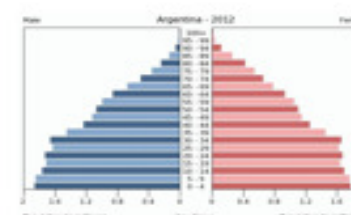
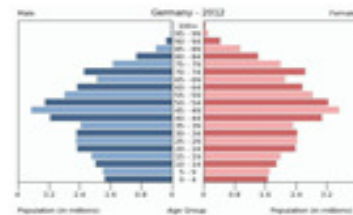
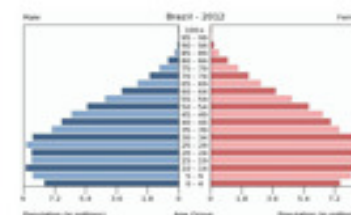
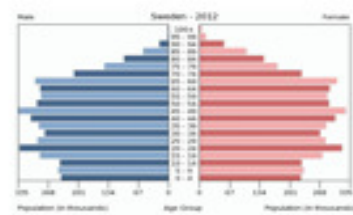
Post Operative Instructions



Barrier 7- Percentage of Population \geq 60 years of age



Samples of Age Structure From the World



Barrier 8- There Are Other Priorities for PAHO

Ten diseases targeted for elimination as a public health problem

- Lymphatic Filariasis
- Onchocerciasis
- Blinding Trachoma
- Chagas disease (domestic vectors, blood transfusion)
- Human Rabies transmitted by Dogs
- Plague
- Leprosy/Hansen's disease
- Malaria (where possible)
- Neonatal Tetanus
- Congenital Syphilis



6

Katia Díaz, PhD, www.paho.org Information Systems Adviser for PAHO/WHO Office of the Director,

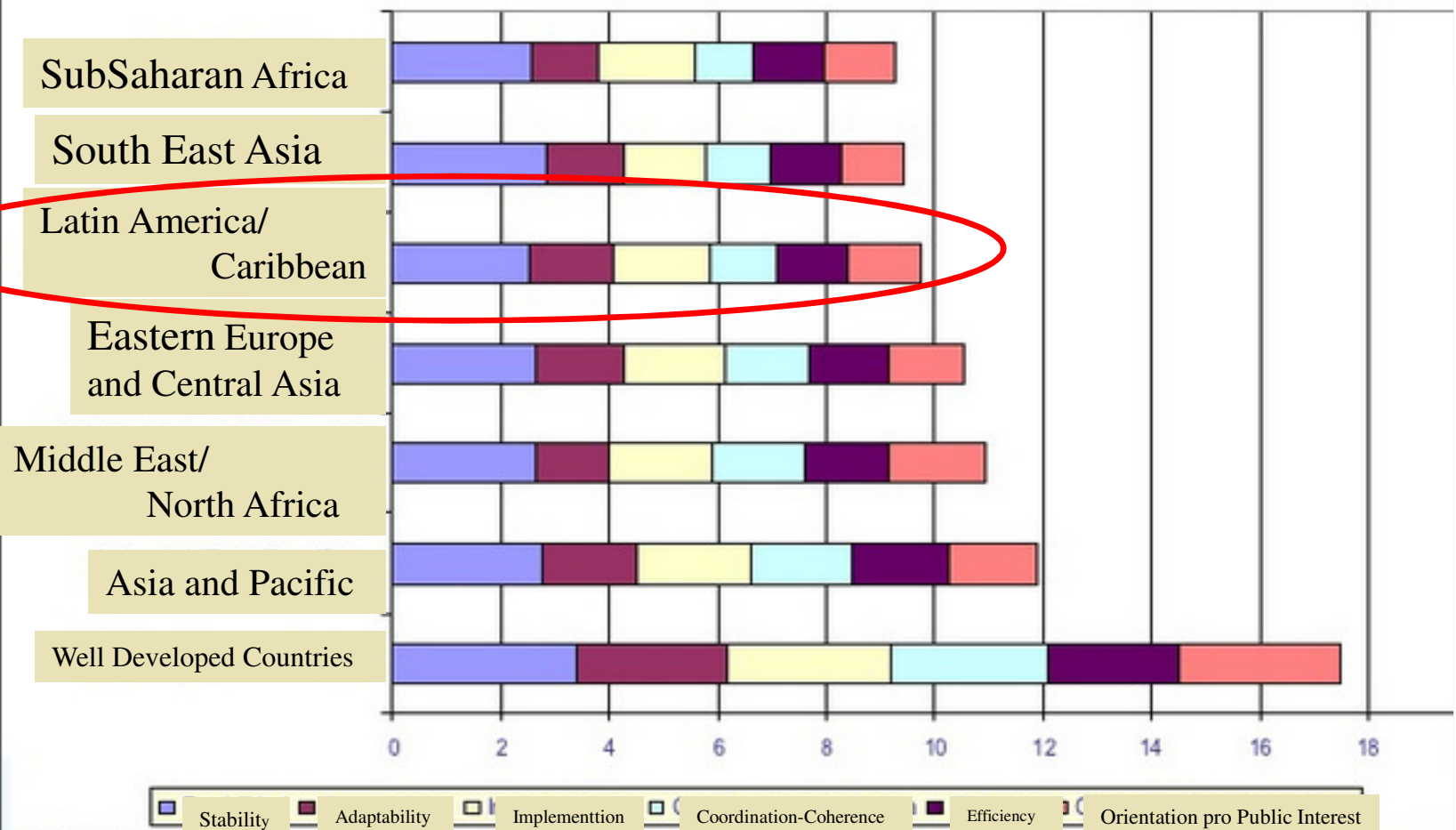


TB



WHO Grading of Health Policy

Health Policy Characteristics of the World by Regions



Stakeholders in Latin America



Workshop in Santo Domingo





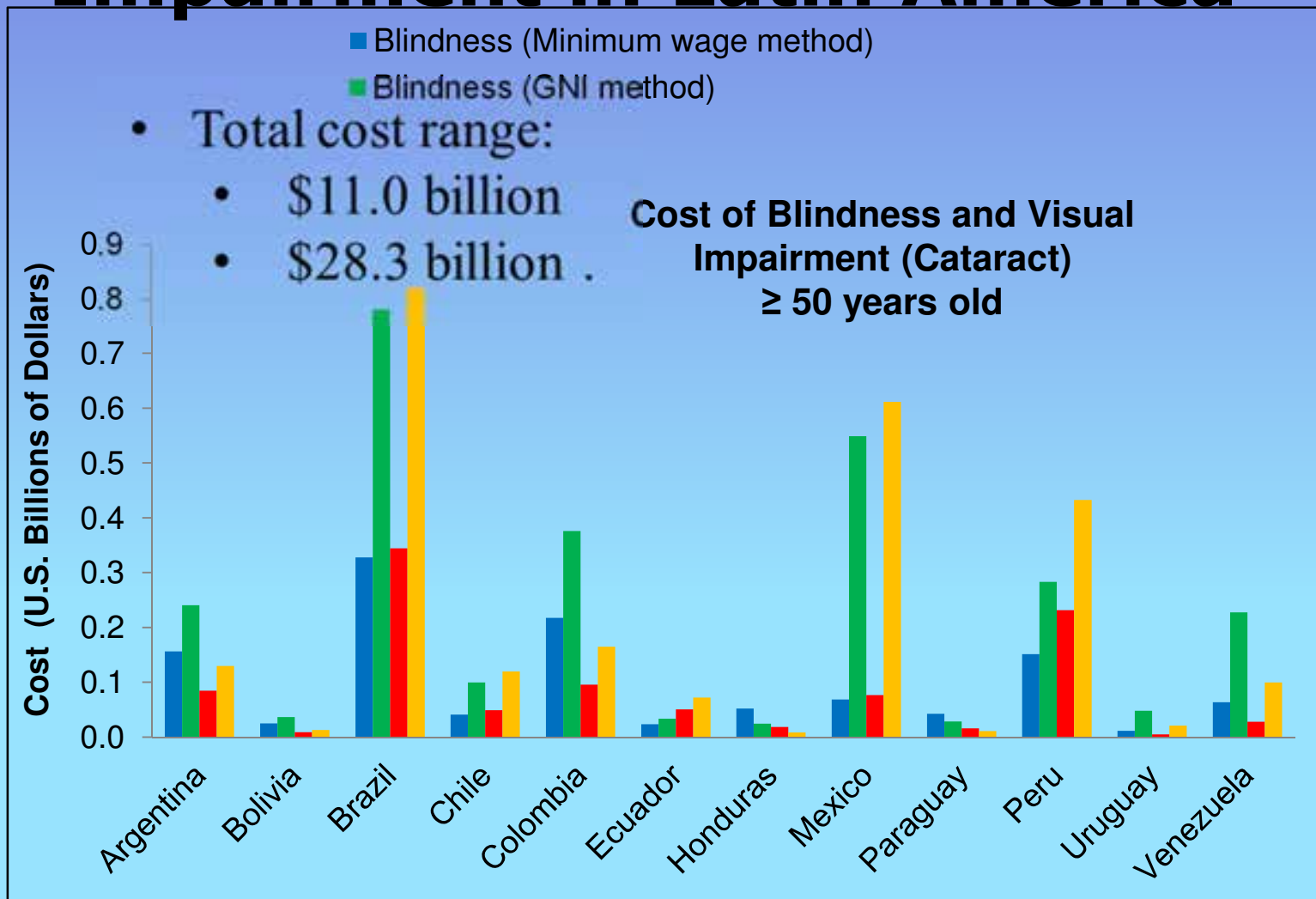


How much does blindness cost?

The Economics of the Problem

- Unemployment
- Needs a guide
- Loses mobility
- Cannot read
- Increased dependence on others
- Quality of Life Diminishes
- Becomes an Economic Burden

Cost of Blindness/Visual Impairment in Latin America





Barrier 9-Appropriate Technology

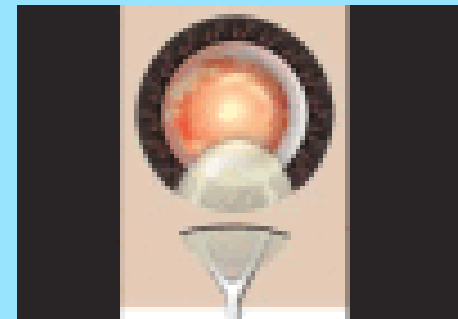
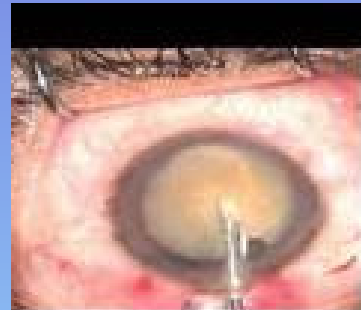
◆ Phacoemulsification

- More Expensive
- Small Incision 2-3 mm
- Less Time
- Sutureless
- Less Astigmatism
- Wants 2nd eye done
- Longer Learning Curve
- Serious Complications for Beginner

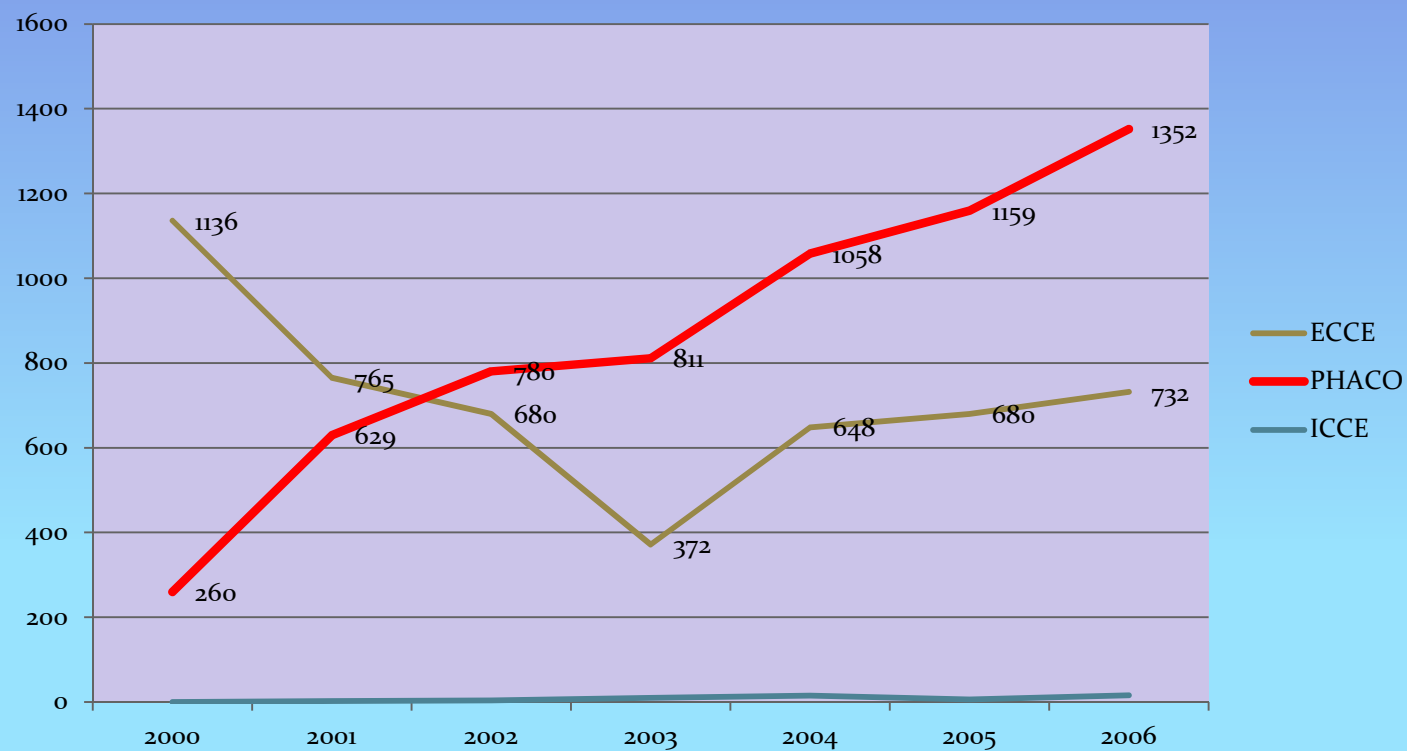
◆ MSICS, Extracapsular

- Less Expensive
- Incision 6-8 mm
- Takes Longer
- Needs Sutures (?)
- More Astigmatism
- Waits for 2nd eye
- Short Learning Curve
- Easy to teach and the complications are less serious

Phaco vs. Manual

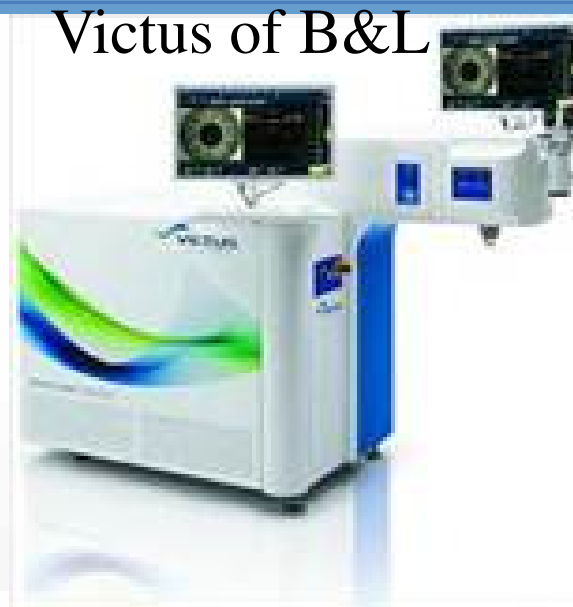


Surgical Technique for Cataract Extraction at Hospital Dr. Elías Santana 2000-2006





Femtosecond Laser Assisted Cataract Surgery



Alcon
LenSx® Laser

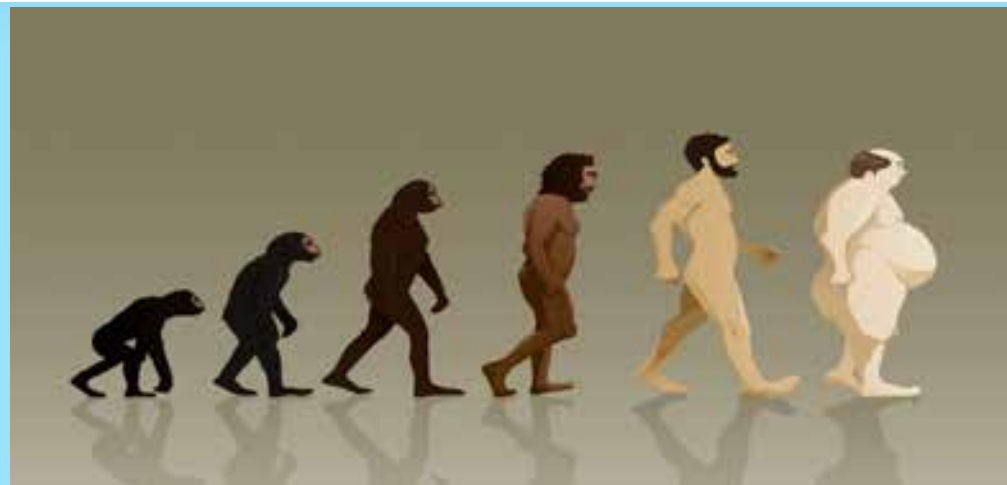
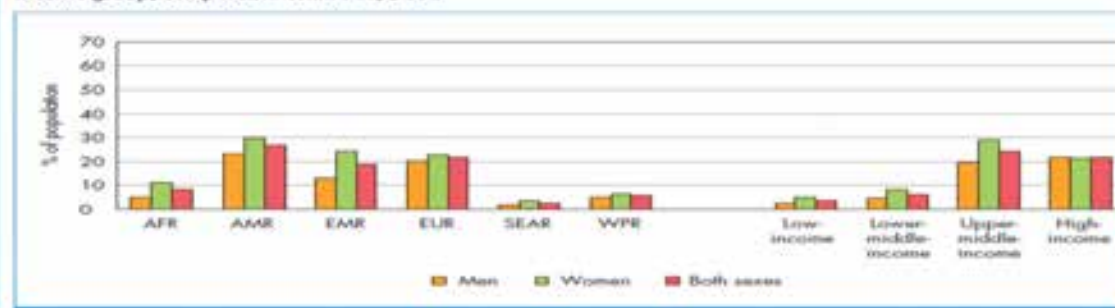


BARRIER 11- THE DIABESITY EPIDEMIC

Figure 15. Age-standardized prevalence of overweight in adults aged 20+ years, by WHO Region and World Bank income group, comparable estimates, 2008

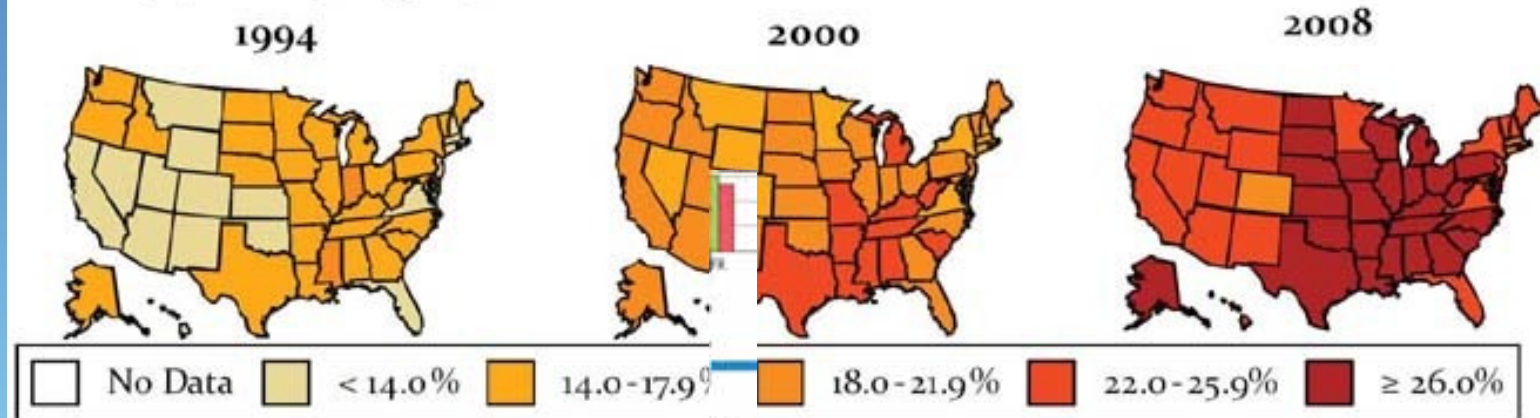


Figure 16. Age-standardized prevalence of obesity in adults aged 20+ years, by WHO Region and World Bank income group, comparable estimates, 2008

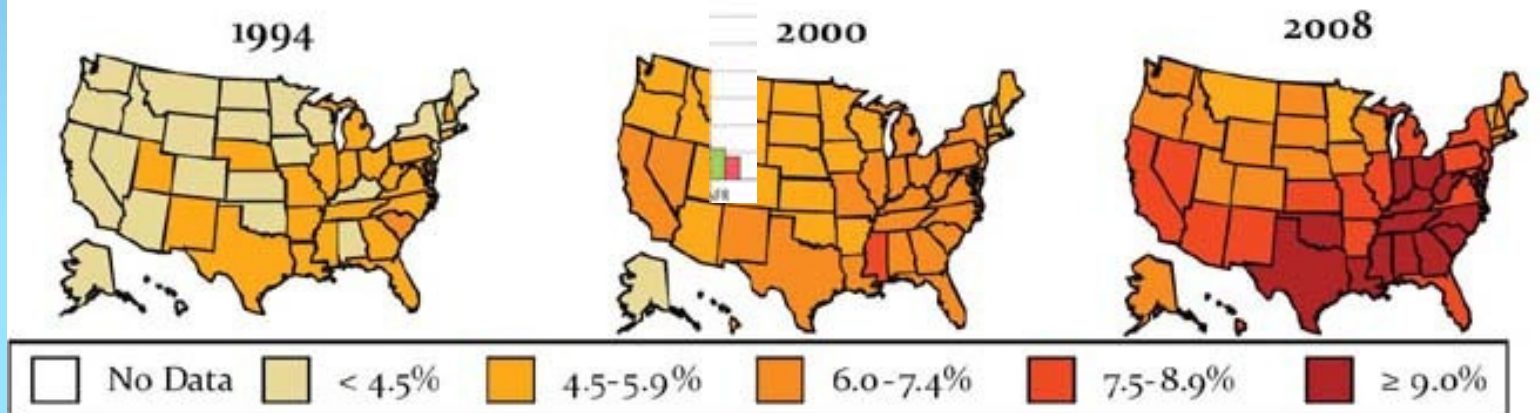


WHO
DATA

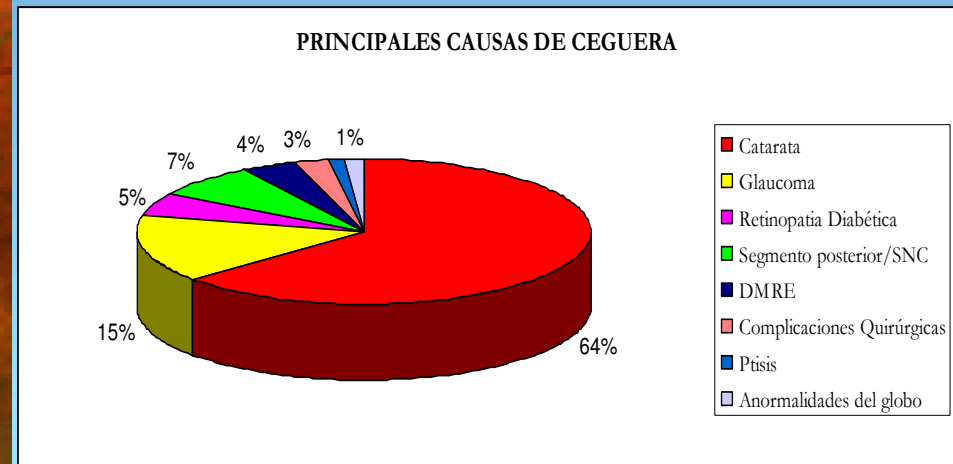
Obesity (BMI = 30 kg/m²)



Diabetes



BLINDNESS FROM DIABETIC RETINOPATHY IS ON THE UPSWING



Barrier 11- The Battle of the Bulge between Ophthalmology and Optometry

- **Coexist**

- Colombia
- Mexico
- Venezuela
- Panamá
- El Salvador
- Honduras
- Nicaragua
- Bolivia
- Ecuador

- **Optometry not Allowed**

- Brazil
- Argentina
- Chile



Barrier 12- The Problem of Health coverage

- ◆ **Law 100 in Colombia**
- ◆ **Law 87-01 in Dominican Republic**
- ◆ **Caja de la Seguridad Social in Costa Rica**
- ◆ **Sistema Único de Saúde in Brazil**
- ◆ **Salud Universal en Méjico: Teoría**
- ◆ ***FONASA e ISAPRE en Chile***
- ◆ ***Obama´s “Affordable Healthcare Act” in the U.S.A***

AUGE

Guarantees Cataract Surgery



Enfermedades Crónicas

Enfermedades del Corazón y Cerebro

Enfermedades de la Visión



Tratamiento quirúrgico de cataratas

Opacidad del cristalino que disminuya o perturba la visión.



Vicios de refracción en personas de 65 años y más

Un vicio de refracción es la consecuencia de una relación inarmónica entre los elementos ópticos (córnea y cristalino) y el largo axial del ojo (diámetro anteroposterior), o una falta de acomodación. Se denomina ametropía a los vicios de refracción que pueden corregirse con lentes correctores y corresponden a hipermetropía, miopía y astigmatismo. La presbicia es la disminución de la capacidad de ver nítido de cerca y, se corrige con lentes.



Retinopatía diabética

Es una complicación de la diabetes, que consiste en un daño progresivo de la retina, asociada a la duración de la diabetes y a un mal control metabólico. Se puede presentar en pacientes con diabetes mellitus tipo 1 ó tipo 2. En su grado máximo puede llevar a un desprendimiento de retina. Es la primera causa de ceguera en edad laboral.



Desprendimiento de retina regmatógeno no traumático

Consiste en la separación de la retina neurosensorial del epitelio pigmentario, que produce una rápida pérdida de la agudeza visual sin presencia de dolor.

Intervenciones Quirúrgicas

Tratamiento de Cánceres

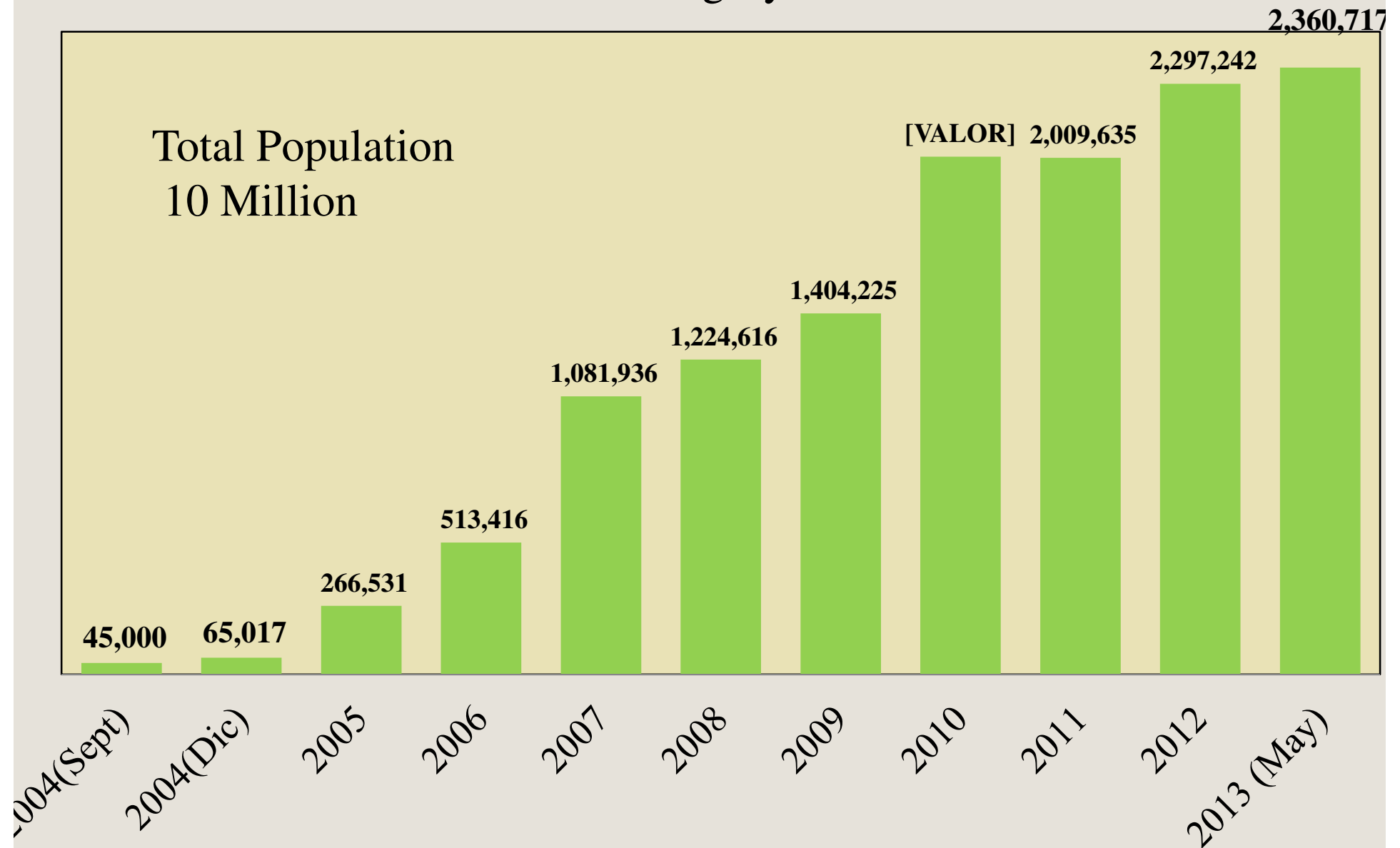


Guaranteed Health Coverage by Governmental Decree “Universal Health Care”

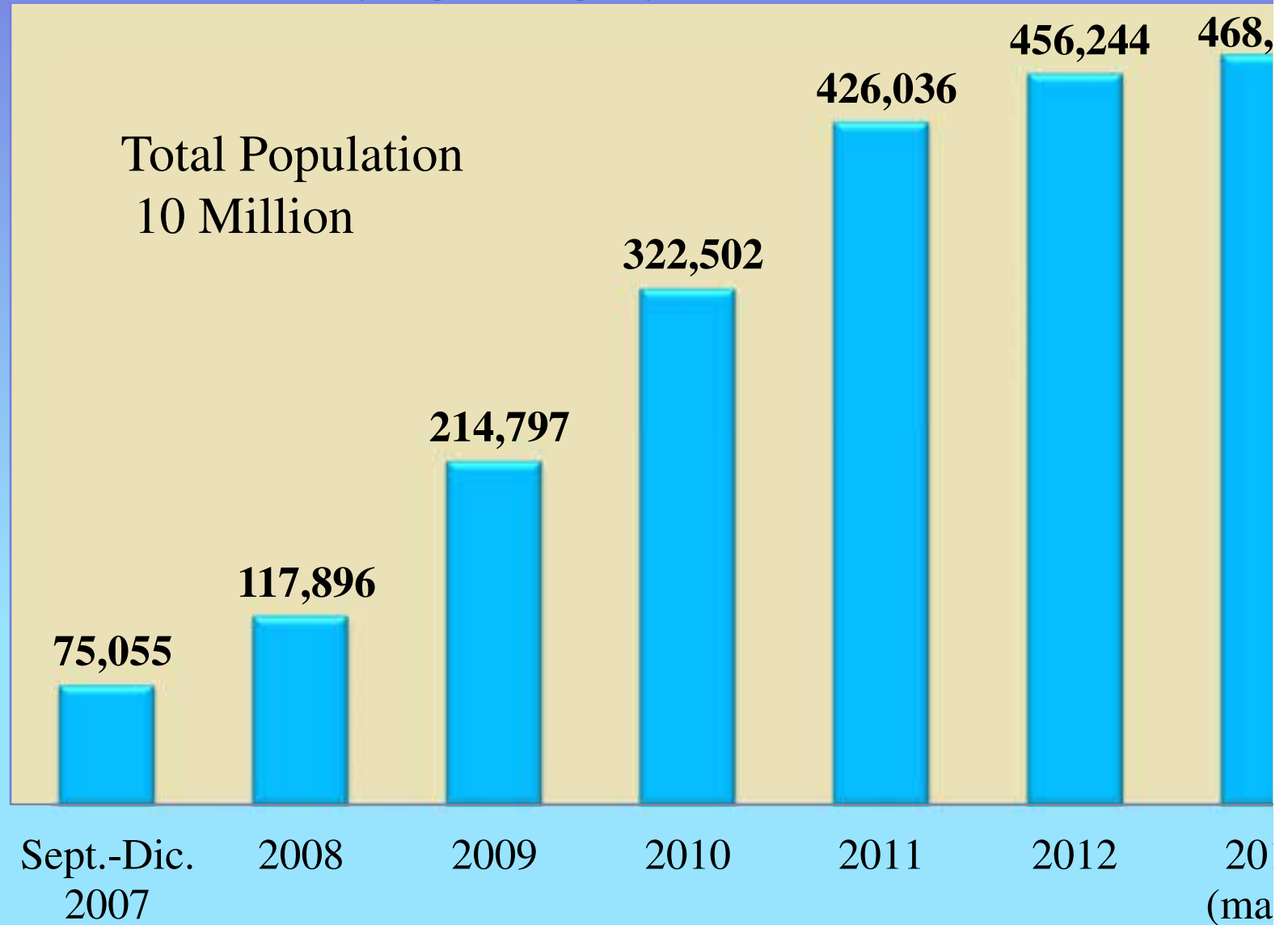
◆ 1. Mandate to Purchase


A mandate that all Americans (and legal residents) purchase Health Insurance. It will be a misdemeanor offense (resulting in a fine only) for a live legal resident person to be found uninsured.

Population of patients that is annually integrated into the
National Health Insurance of the Dominican Republic in the
Subsidized Category of SeNaSa



Population of Patients in the National Health Insurance of the Dominican Republic in the Paying Category of SENASA





Insurance Situation of the Dominican Republic

March of 2013

1. National
Health
Insurance
Subsidized
2,360,717

Private Health
Insurance
Paying
2,747,735

4,900,000
Million People
Uninsured

Data
from
ADARS



THANK YOU FOR YOUR GENEROUS
SUPPORT AND CONTRIBUTION TO THE
REALIZATION OF
THE VISION 2020 LATIN AMERICA STRATEGIC
PLAN!



**GROUP PHOTO
FROM MARCH
2012 V2020 LA
STRATEGIC
PLAN
MEETING IN
LIMA, PERU**