

The Social cost of alcoholism



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The alcohol consumption in the world



Consumption of alcoholic beverages

1. Distilled: 50%
2. Beer: 35%
3. Wine: 8%

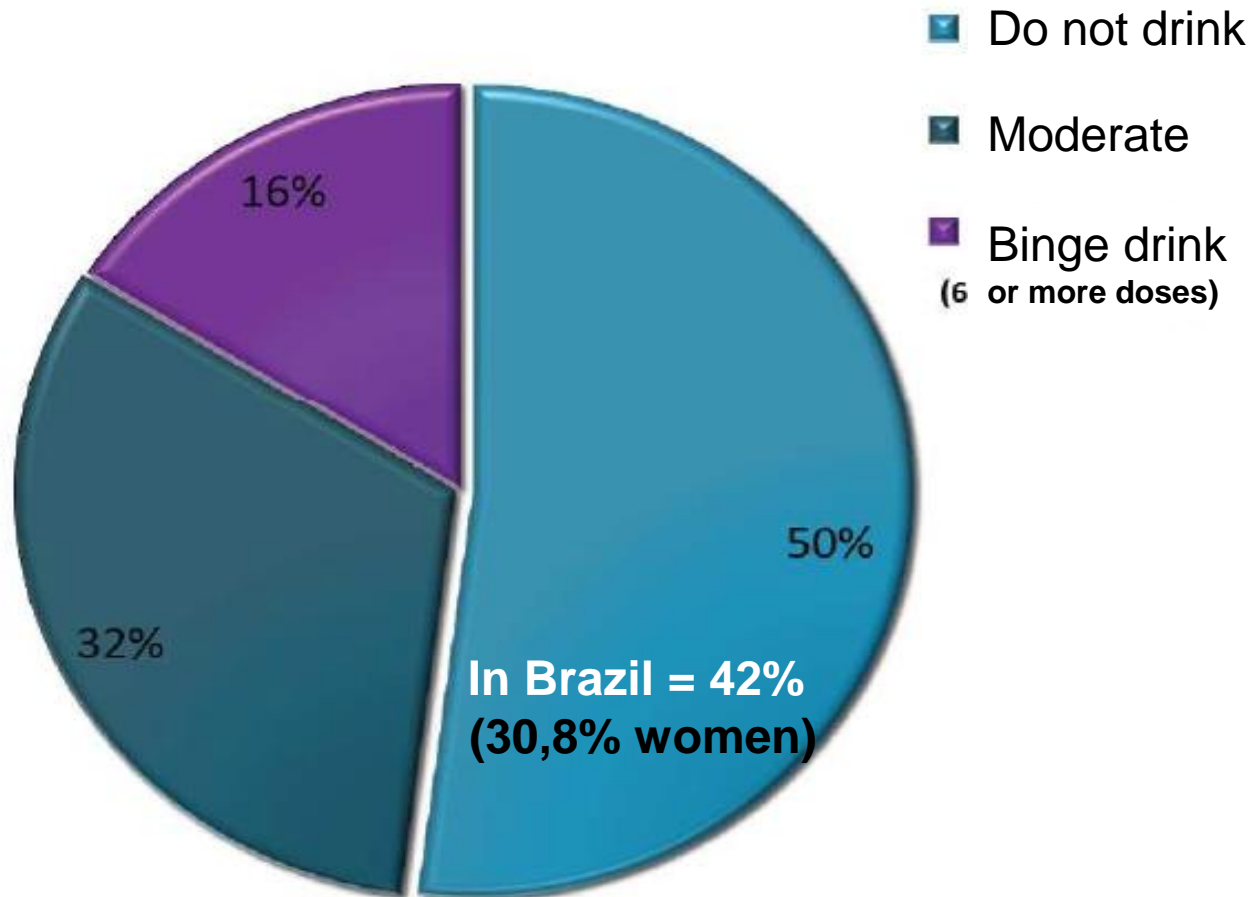
Preferences in America: Beer (55%), Distilled (32,6%) and Wine (11,7%).

Excessive alcohol consumption: >60 grams (about 5 doses or more) of pure alcohol on a single occasion at least once in the last month

- **Associated to accidents and violence.**

This pattern was observed in the world in 16% of drinkers and in Brazil, 22% in 2010 (women: 11%, men: 30%).

Consumers of alcoholic beverages



There is an increase in alcoholic drunkenness followed by amnesia.

For all ages, the average consumption per capita among adults is 5.1 liters of alcohol

- 1.9 liters are beer,
- 1.3 are wine and
- 1.7 are distillates.

The peak in alcohol consumption in Europe, African countries and the Americas occurred around the 1980

Organização Mundial de Saúde (OMS) -
Global Status Report, 2004

The Social cost of alcoholism in Brazil

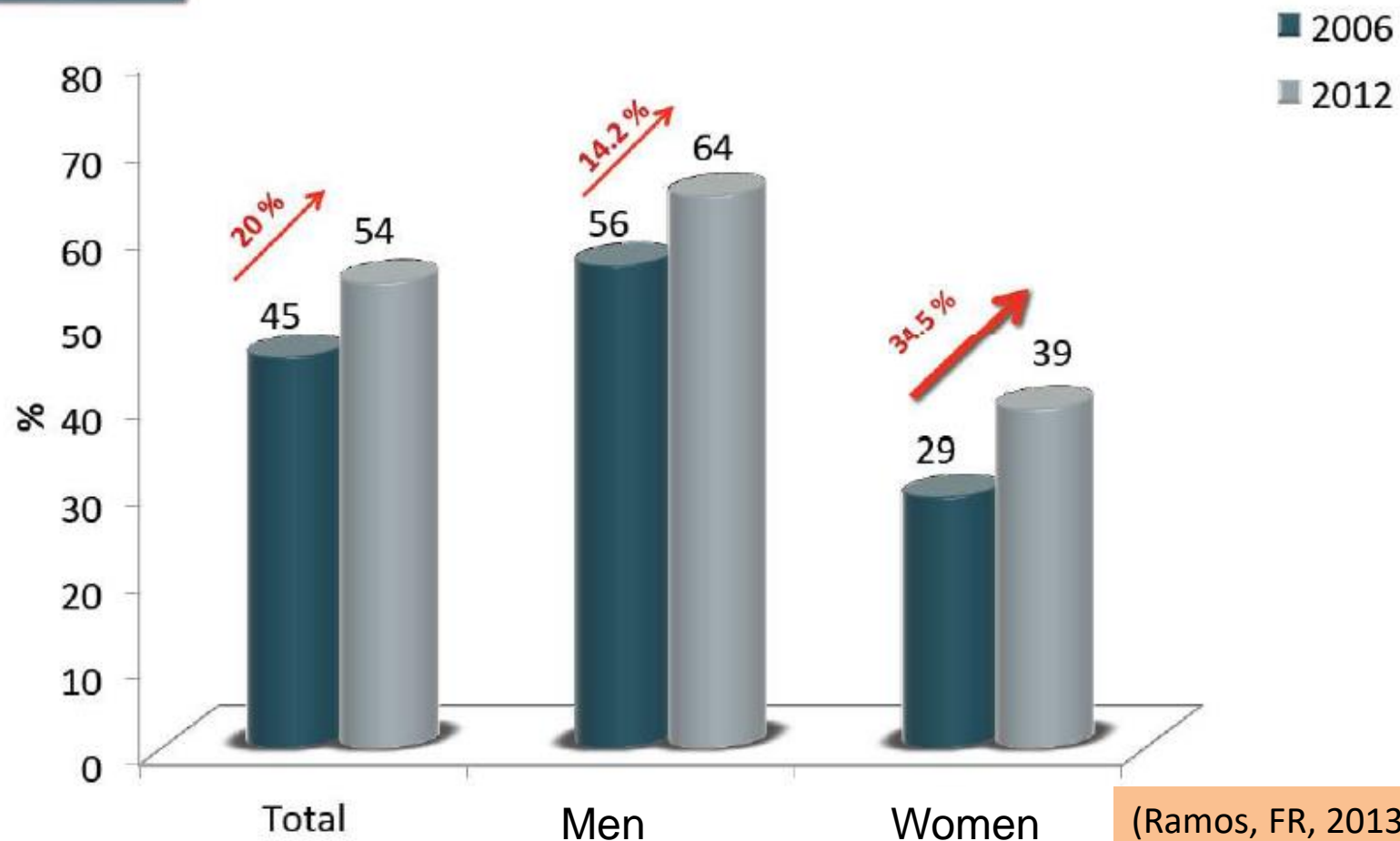


- One of the main problems of public health,
- More than 10% of all morbidity and mortality in Brazil

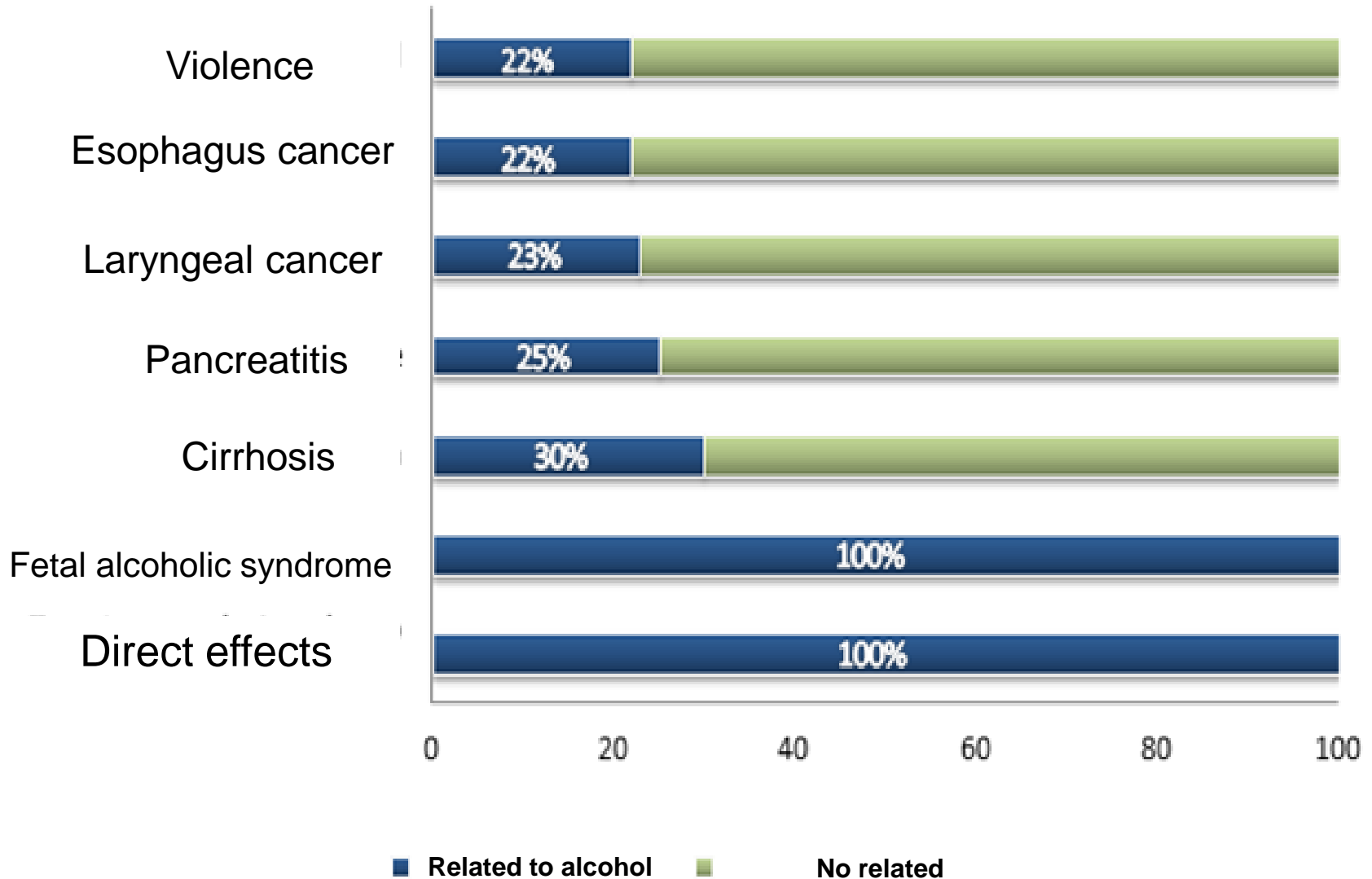
Social consumption of alcoholic beverages in Brazil (N=4.100)

Adults

Once a week or more



Effects of alcoholism

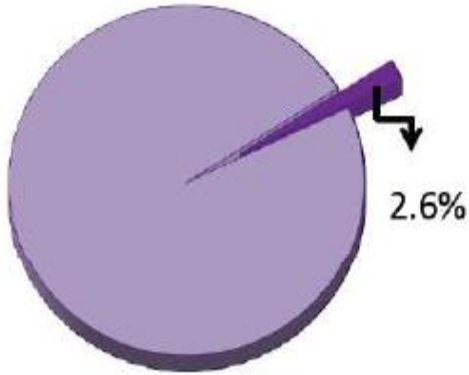


Violence after drinking alcohol

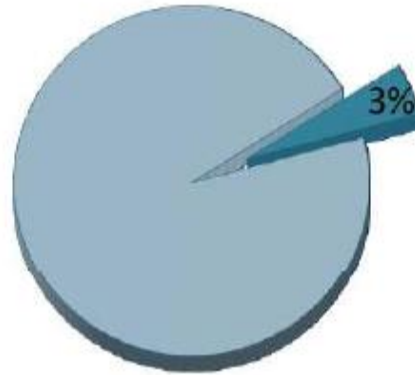
- **11 millions of victims for violent crimes**
- **25% of the cases of violence**
- **35% of sexual assaults**
- **30 a 80% of the victims drink alcohol**
- **Sequelae of violence may lead to alcoholism**

Physical aggression

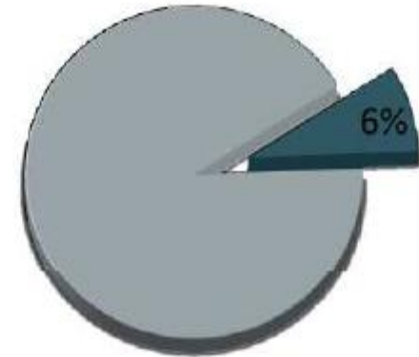
General population



Men



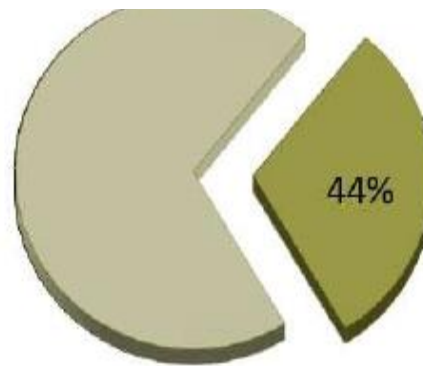
Men < 30 years



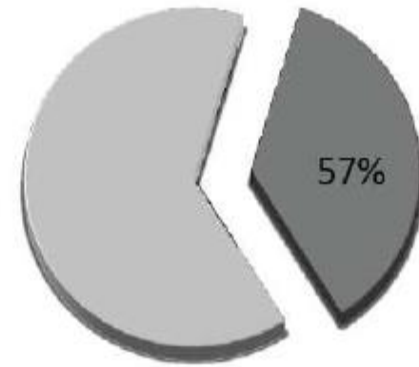
Men < 30 years with previous problems



Others drugs



Cocain users



(WHO-2015)

Age and drinks preferred by teens

Age (median) = 13,6 years (EUA=13,1)

Beer = 30,%

Wine= 25,7% (women , age: 24-30y)

England =38% (13y)

(National Drug and Alcohol Research Center, University of New South Wales, Sidney, 2005)

Homeless

Brazil : 33% (9-11 years) and 77% (15-18y)

Canadá: 88% and 9% with daily use

National Institute on Alcohol Abuse and Alcoholism
(NIAAA) - Alcohol Alert No 57, 2002

Patterns of alcohol use in the elderly in the city of Porto Alegre, Brazil

(Guidolin BF et al -Ciênc. Saúde Coletiva 21 (1) :2016)

The study revealed 12% elderly people with a history of alcoholism,

✓ (3.1%) had a diagnosis of current alcoholism,

✓ (9%) had a history of alcohol dependence in the past and

Men had a prevalence ratio of 11.6 times for a history of alcoholism in comparison to women.

These results suggest that **alcohol abuse can be hidden** from many clinicians; patients may deny the current use of alcohol but confirm its use in the past, even when guaranteed confidentiality of information.

An American study in which 4.236 elderly people over 65 years were interviewed found that 13% of men and 8% of women in its population reported excessive alcohol consumption.

Priorities and strategies of the European Union (2016).

- ✓ **Protect young people**, children and concepts from the gestation of alcohol action.
- ✓ **Reduce crash damage** and deaths related to alcohol use.
- ✓ **Prevent damage in adults** and reduce negative impact on work.
- ✓ **Increase knowledge** about the impact on the health of harmful alcohol consumption as well as their appropriate consumption patterns.

Brazilian laws

DECRETO N o 6.117, DE 22 DE MAIO DE 2007

Aprova a Política Nacional sobre o Álcool, dispõe sobre as medidas para redução do uso indevido de álcool e sua associação com a violência e criminalidade, e dá outras providências..

- 1. Dezembro de 2012 foi sancionada a [Lei nº 12.760](#), que reforça a popularmente conhecida “Lei Seca” (nº 11.705/2008). Trata-se de uma alteração no Código de Trânsito Brasileiro que, além de aumentar o valor da multa administrativa (de R\$ 957,69 para R\$ 1.915,38, podendo dobrar em caso de reincidência no período de 12 meses),*
- 2. [Amplia as possibilidades de provas da infração](#) de dirigir sob a influência de álcool ou de qualquer substância psicoativa, as quais foram disciplinadas pelo Conselho Nacional de Trânsito (CONTRAN) na [Resolução nº 432 de 23 de janeiro de 2013](#).*

Alcohol consumption in Brazil

Testes do bafômetro realizados pela Polícia Rodoviária Federal



exames de alcoolemia



condutores multados
por dirigir sob
influência de álcool



foram presos pelo
crime de
embriaguez ao volante

| | | | |
|---------|-------------|----------|---------|
| Em 2014 | 1.531.216 | 34.285 | 8.461 |
| Em 2015 | 1.999.442 ↑ | 23.477 ↓ | 7.565 ↓ |

Alcohol use alone and in combination with other drugs among truck drivers on highways in São Paulo State, Brazil: a cross-sectional study.

Leopoldo K et al-Cad Saude Publica 31(9):1916-28, 2015

Traffic accidents cause more than a million deaths per year worldwide. Brazil is one of the leading countries in traffic accidents.

(N= 684 truck drivers in São Paulo State, Brazil).

- 67.3% reported alcohol use in the previous 30 days,
- 34.6% reported heavy drinking,
- 26% binge drinking,
- 9.2% were at risk of developing alcohol addiction.

Furthermore, 54.6% reported multiple drug use, mostly alcohol with tobacco and energy drinks.

Truck drivers that reported **multiple drug use** showed heavier alcohol use than those who consumed only alcohol.

Binge Drinking Associations with Patrons' Risk Behaviors and Alcohol Effects after Leaving a Nightclub: Sex Differences in the "Balada com Ciência" Portal Survey Study in Brazil. Sanchez et al –PloS One, 19:10(8),2015.

Data were collected during the first semester of 2013 in the City of São Paulo, Brazil.

- **Brazil is ranked as having the second highest rate of major complications resulting from alcohol consumption, according to disability-adjusted life years lost**
- In Brazil, one study reported that 40% of young people (18–24 years) engaged in BD at least once in the 12 months preceding the survey, and nightclubs are the places of choice for this practice
- This pattern is usually characterized by the use of at least **four doses of alcohol** on a single occasion for women and five doses for men, which leads to an ethanol concentration in the **blood of 0.08% or higher**

Binge drinking

The consumption of an excessive amount of alcohol in a short period of time.

The rate of drink and drive (27.9% of men and 20.4% women) was much higher than the 4.2% found in a representative sample of a population of drivers from Brazilian roads .

However, it should be noted that Brazil has one of the most stringent laws for alcohol consumption and traffic.

This law, known in Brazil as the "dry law", indicates that no alcohol blood/breath concentration is accepted among drivers, and the penalty for a BrAC >0.01 mg/L ranges from fines to car seizure and arrests (Law No. 12,760 / 2012).

The prevalence of binge drinking in Sao Paulo nightclubs was lower than in four European cities in which 50.4% and lower than the 35.5% prevalence in North-Americans approached on the Mexican-US border

Binge Drinking Associations with Patrons' Risk Behaviors and Alcohol Effects after Leaving a Nightclub: Sex Differences in the "Balada com Ciência" Portal Survey Study in Brazil. Sanchez et al –PloS One, 19:10(8),2015.

Conclusions

- Among teenage high school students in this country, the picture is even more alarming, with 35% of high school students
- BD is associated with higher rates of sexual abuse, suicide attempts, unprotected sex, unwanted pregnancies, alcohol overdose, falls, gastritis and pancreatitis , **HIV (20-25y)**
- Brazil Illicit drugs = 4,5%
- EUA estimated = 30%

Annual cost of alcoholism

(Direct social cost)

| Country | Year | Estimated cost |
|---------|------|--------------------|
| Canadá | 1992 | US\$ 7,52 bilhões |
| Chile | - | US\$ 2,969 bilhões |
| England | - | £ 15,4 bilhões |
| Japan | 1987 | US\$ 5,7 bilhões |
| EUA | 1998 | US\$ 184,6 bilhões |

DALYs Percent (1.000 hab) of the diseases caused by alcohol (%)

| Diseases | DALYs (alcohol related, %) |
|--------------------------------|----------------------------|
| ■ Cancer | 7% |
| ■ Neuropsychiatric | 38% |
| ■ Cardiovascular | 7% |
| ■ Diabetes, cirrhosis | 8% |
| ■ External unintentional | 28% |
| ■ External intentional | 12% |

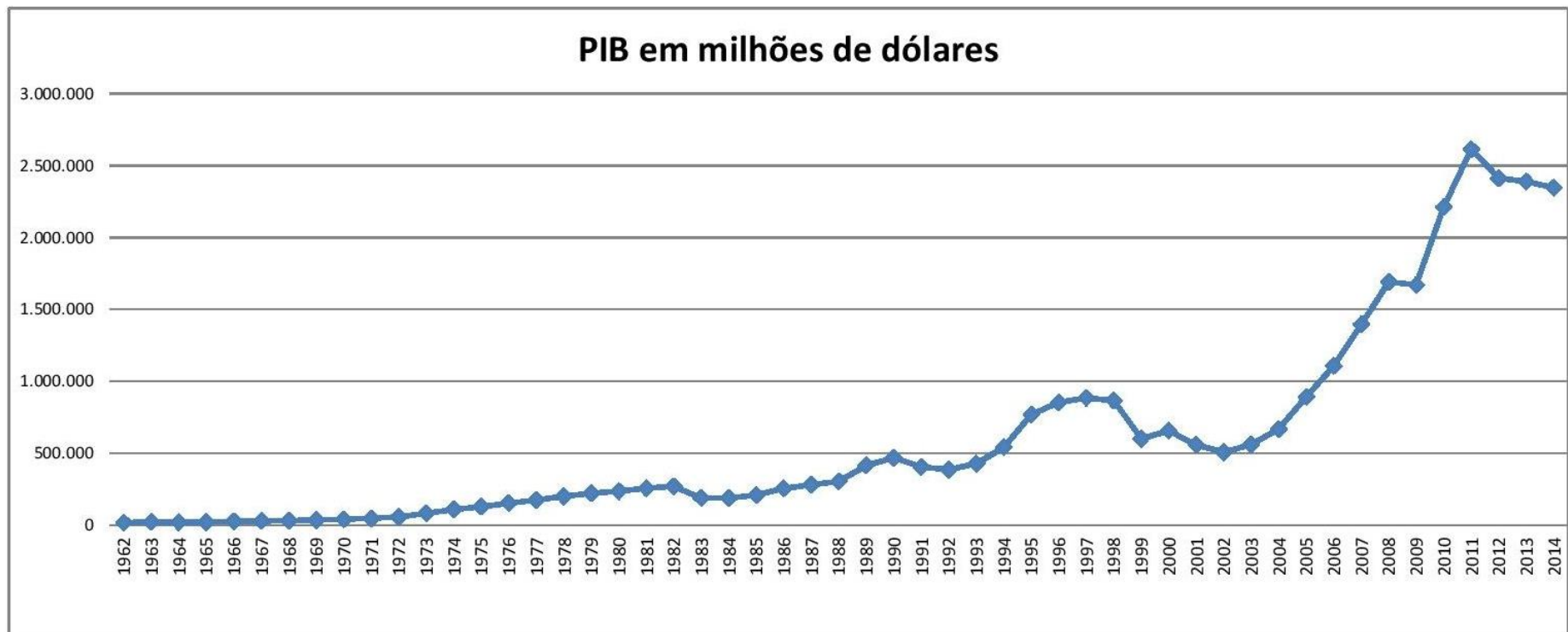
WHO, 2009

Direct social cost of alcoholism/yearly

- 10% of social consumers will become alcoholics
- 100.000 related deaths
- 36.000 accidental deaths
- 38% deaths (accidents with vehicles)
- 25% hospital admissions
- 30% Suicides
- \$ 600 Billions/yearly

Estimated cost of alcoholism in Brazil

Estimated cost (direct and indirect) = **6,7% of PIB**



Traffic-accidents (2015): R\$58 Bilhões
(50% had ingested alcohol)

(IBGE,2015)

Actions to reduce the alcohol abuse (WHO)

- **Health policy and interventions** (well defined goals and with scientific evidence);
- **Equity and respect** (National, religious and cultural contexts);
- **Protection to high-risk populations**
- **Access to and prevention of effective health services**
- **Protection for children and adults who do not like alcoholic beverages**
- **Inclusion of all kinds of alcoholic drinks**

Cost/effective interventions (regulation of advertisements).
Evidence proving effectiveness (**drinking and driving**).

Actions to reduce the alcohol abuse (Brazil)

- 1- Stable number of consumers with an increase in quantity and frequency of alcohol intake
- 2- Increase in the number of young women (2006-2012)
- 3- Reduction in the number of consumers who drink and drive
- 4- Two times more frequent association with guns.

(Laranjeira, RR 2015)

Conclusions

How to reduce the cost of alcoholism in Brazil?

- **Education**
- **Familiar habits**
- **Restrict access to alcohol beverages**
- **Raise taxes**
- **Compliance with laws**
- **Advertising restrictions**
- **Blitze on streets and roads**





Thank you !