

While recorded alcohol consumption among adults has fallen steadily in most developed countries since 1980, it has risen steadily in developing countries.

- Global Status Report on Alcohol, 1999.

**No Organ in the body is immune
from alcohol related harm
(Bower – 1992)**



Acute & chronic effects

Alcohol

- Road traffic injuries
- Falls
- Work place injuries
- Poisoning
- Burns
- Drowning
- Suicides
- Violence
- Disasters
- Domestic injuries

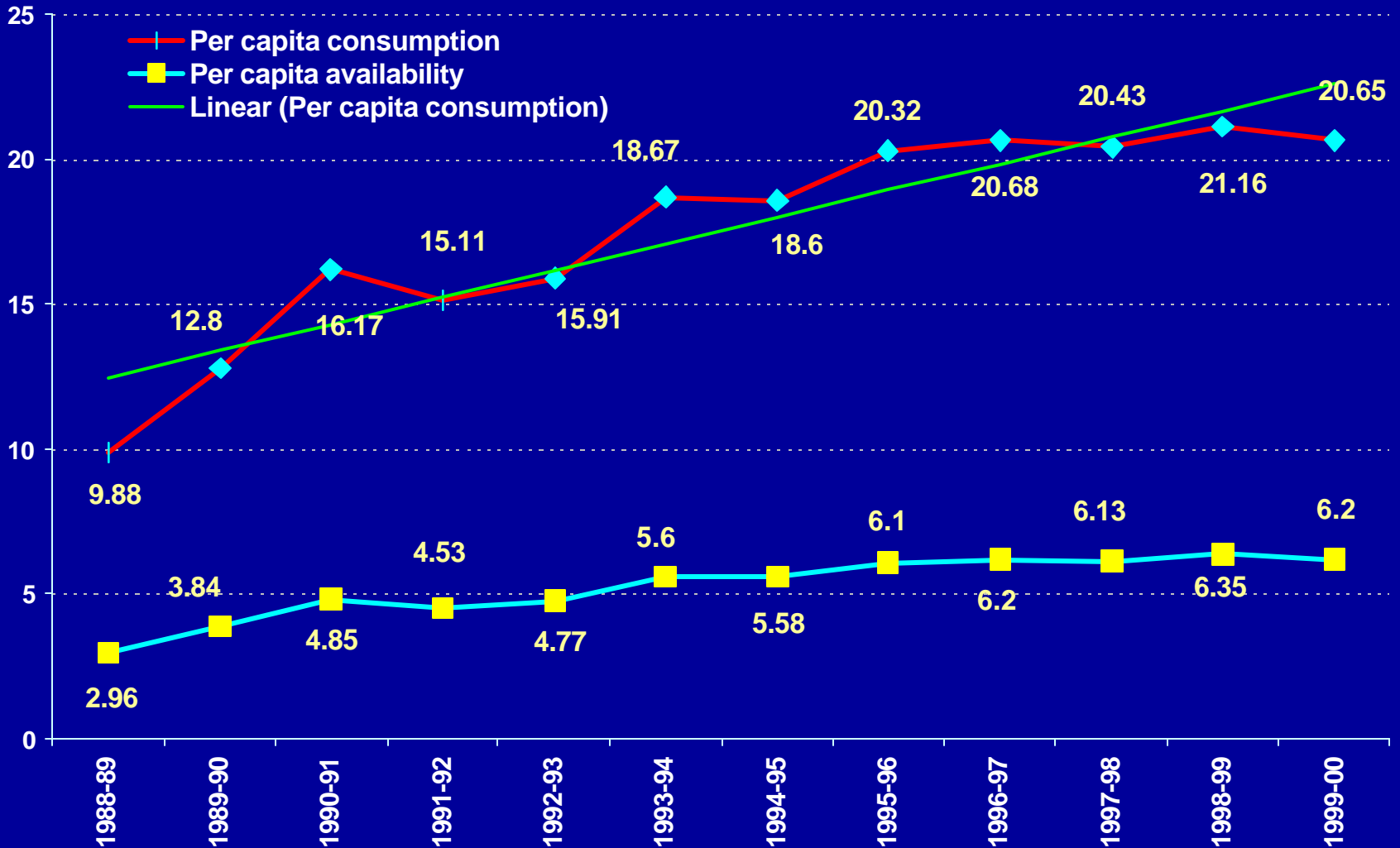
Impact of alcohol on injury risk and all cause mortality

- ❖ **Age – Sex distribution of population.**
- ❖ **Level of alcohol production.**
- ❖ **Extent of alcohol consumption.**
- ❖ **Level of modernization.**
- ❖ **Urbanization.**
- ❖ **Extent of motorization.**
- ❖ **Alcohol control policies.**
- ❖ **Distribution of alcohol in society.**
- ❖ **Illicit production of liquor.**
- ❖ **Values & cultural beliefs.**
- ❖ **Health awareness of people.**

GBD & Injury attributable to selected risk factors, 1990.

Sl. No.	Description	Deaths	% of total deaths	DALYs	As % of total DALYs
1	Malnutrition	5,881	11.7	219,575	15.9
2	Tobacco	3,038	6.0	36,182	2.6
3	Hypertension	2,918	5.8	19,076	1.4
4	Water supply, Sanitation & hygiene	2,668	5.3	93,392	6.8
5	Physical activity	1,991	3.9	13,653	1.0
6	Occupation	1,129	2.2	37,887	2.7
7	Unsafe Sex	1,095	2.2	48,702	3.5
8	Alcohol	774	1.5	47,687	3.5
9	Air Pollution	568	1.1	7,254	0.5
10	Illicit drugs	100	0.2	8,467	0.6

Rise in availability and consumption



Prevalence & pattern of alcohol use

- **Psychiatric Morbidity surveys 1- 5%**
- **Population drinking surveys 18 - 53%**
- **Alcohol Use in**
 - Students 12 - 32%**
 - Medical students 40 - 60%**
 - Factory workers 10 - 20%**
- **Current use, men , 15 +yrs 35 - 58%**

Some emerging patterns of alcohol usage

- **Men drink for more than women, but women's drinking is rising.**
- **The age of starting drinking is on the earlier side.**
- **Every third person who starts, develops problem drinking.**
- **People with heavy use of alcohol, develop early health problems.**
- **Early health damages are unrecognized by physicians.**
- **Hospital admissions directly linked to per capita consumptions**
- **Drinking also linked to growing health problems in society.**

ALCOHOL INFLUENCE

(with reference to Traffic Injuries)

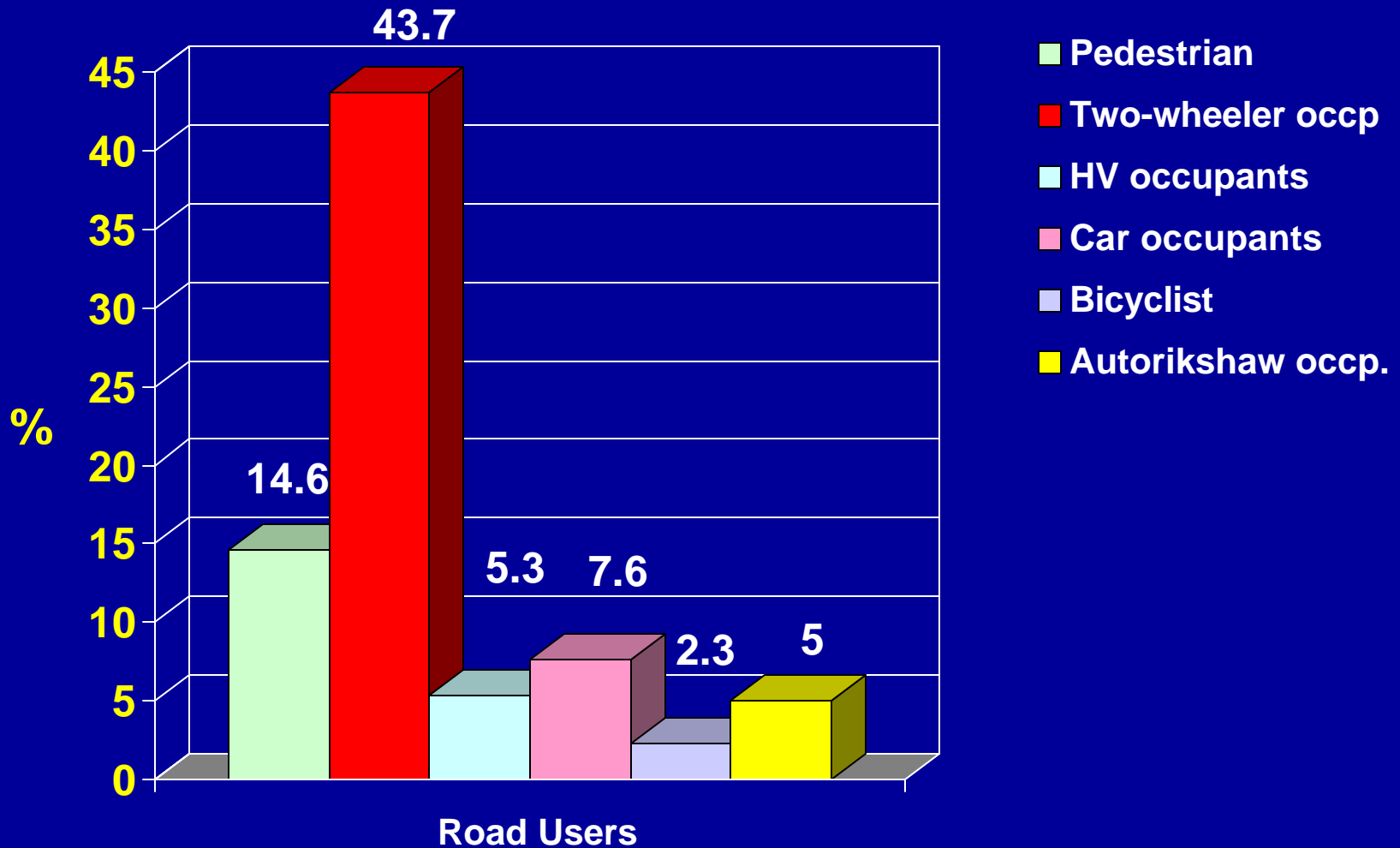
- ⇒ Impaired judgement risk taking behaviour.**
- ⇒ Psychomotor performance inadequate performance.**
- ⇒ Higher amounts of body injury.**
- ⇒ Longterm consumption vulnerability of body organs.**
- ⇒ Difficulties in assessment therapeutic interventions.**

**Total males (16+ years)
involved in road accidents
3979**

**Under the influence
of alcohol
(20.7%)**

825

ALCOHOL CONSUMPTION AMONG ROAD USERS



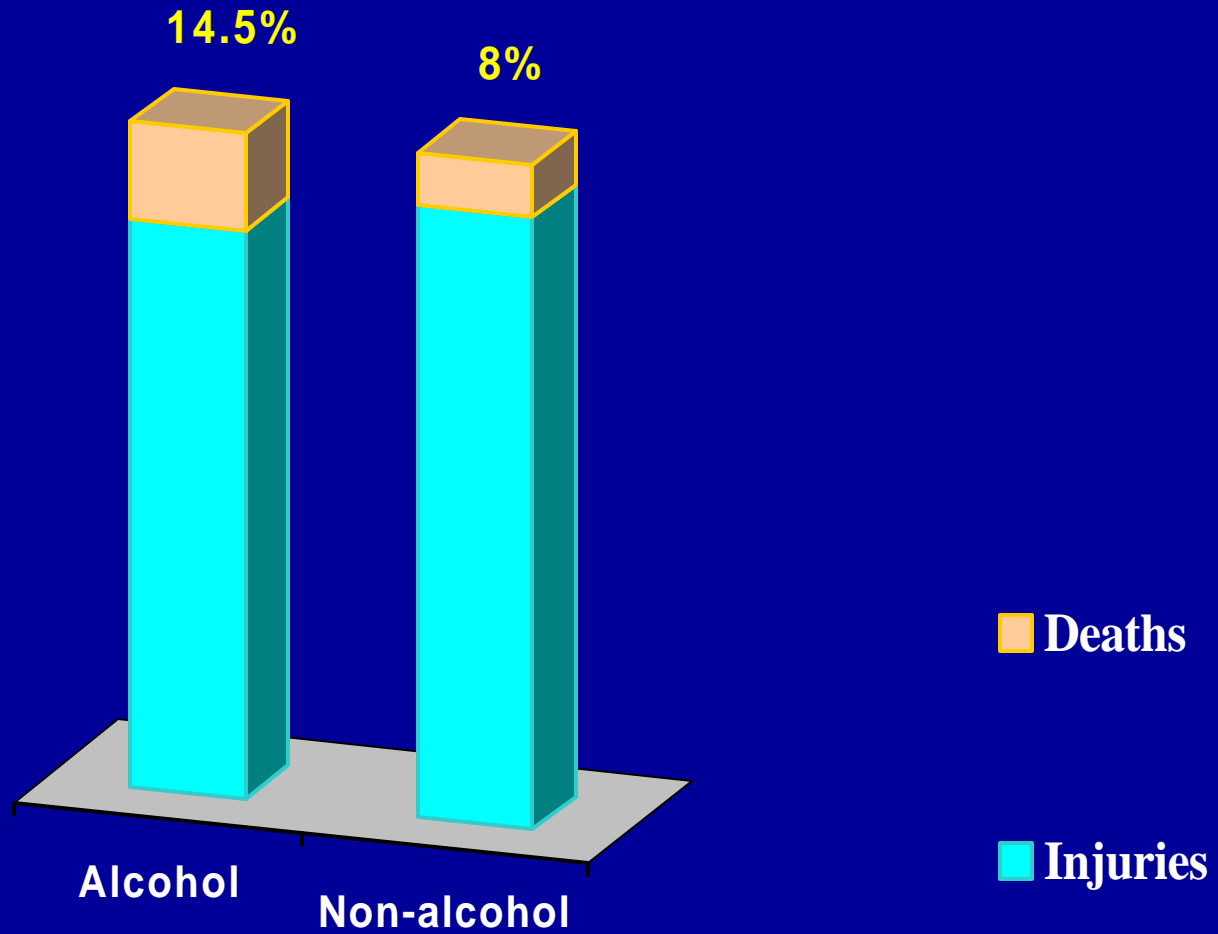
SEVERITY OF BRAIN INJURY

	Alcohol +	Alcohol -
<8	16%	12%
9-12	21%	13%
13+	63%	75%

DISCHARGE DISPOSITION

	Alcohol +	Alcohol -
Survival	93.5%	95.6%
Death	6.5%	4.4%

Alcohol Consumption & Head Injury Deaths



Alcohol

- **chronic illness**
- **deprivation of the family**
- **poverty and debts**
- **comorbid depression**
- **easy availability at crisis time**
- **mixing with OP compounds & drugs**
- **violence against women & children**

SUICIDES

.... BEYOND NUMBERS



**National Institute of
Mental Health & Neuro Sciences**
(Deemed University) Bangalore-560 029.

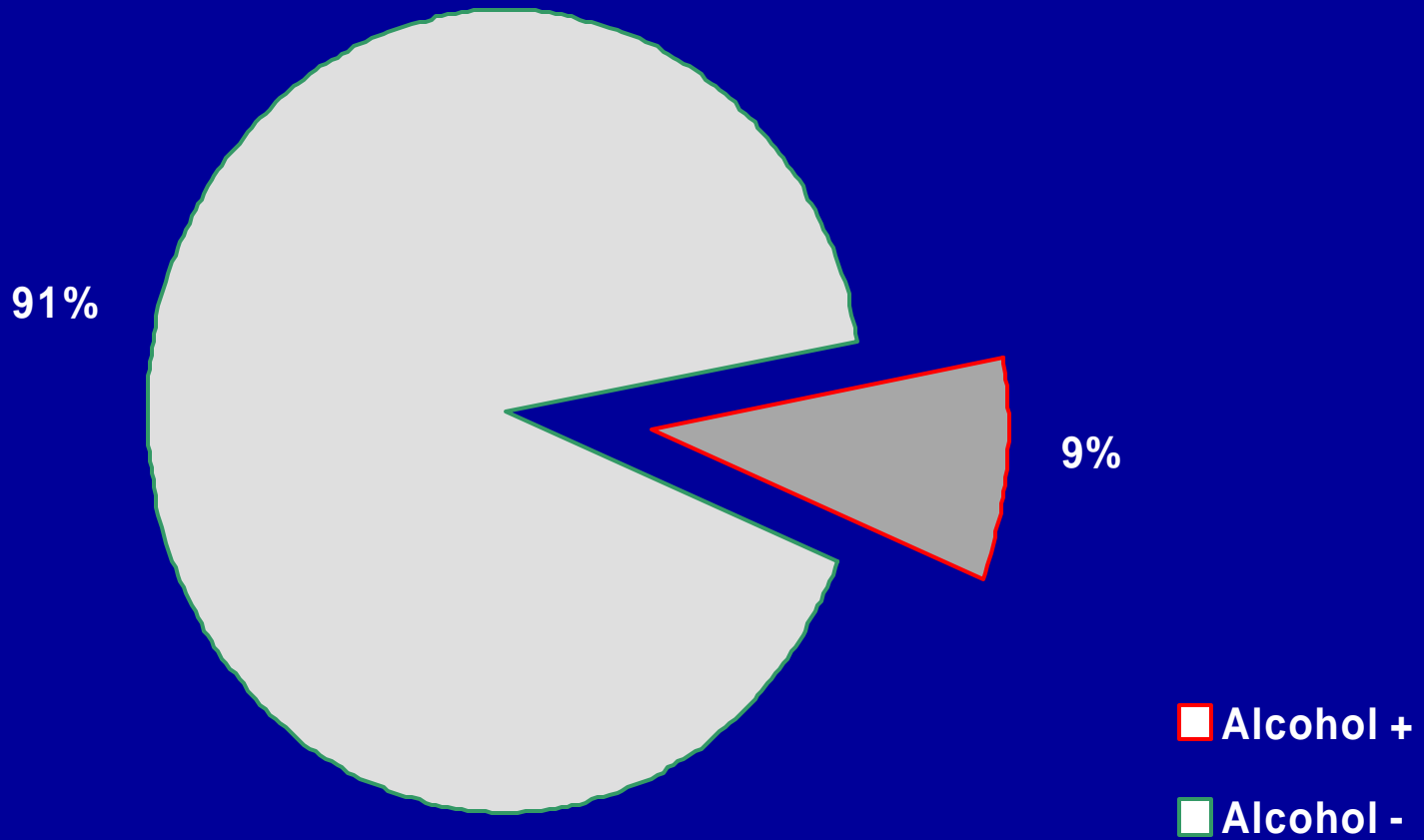


**EPIDEMIOLOGY OF
SUICIDES IN
BANGALORE**

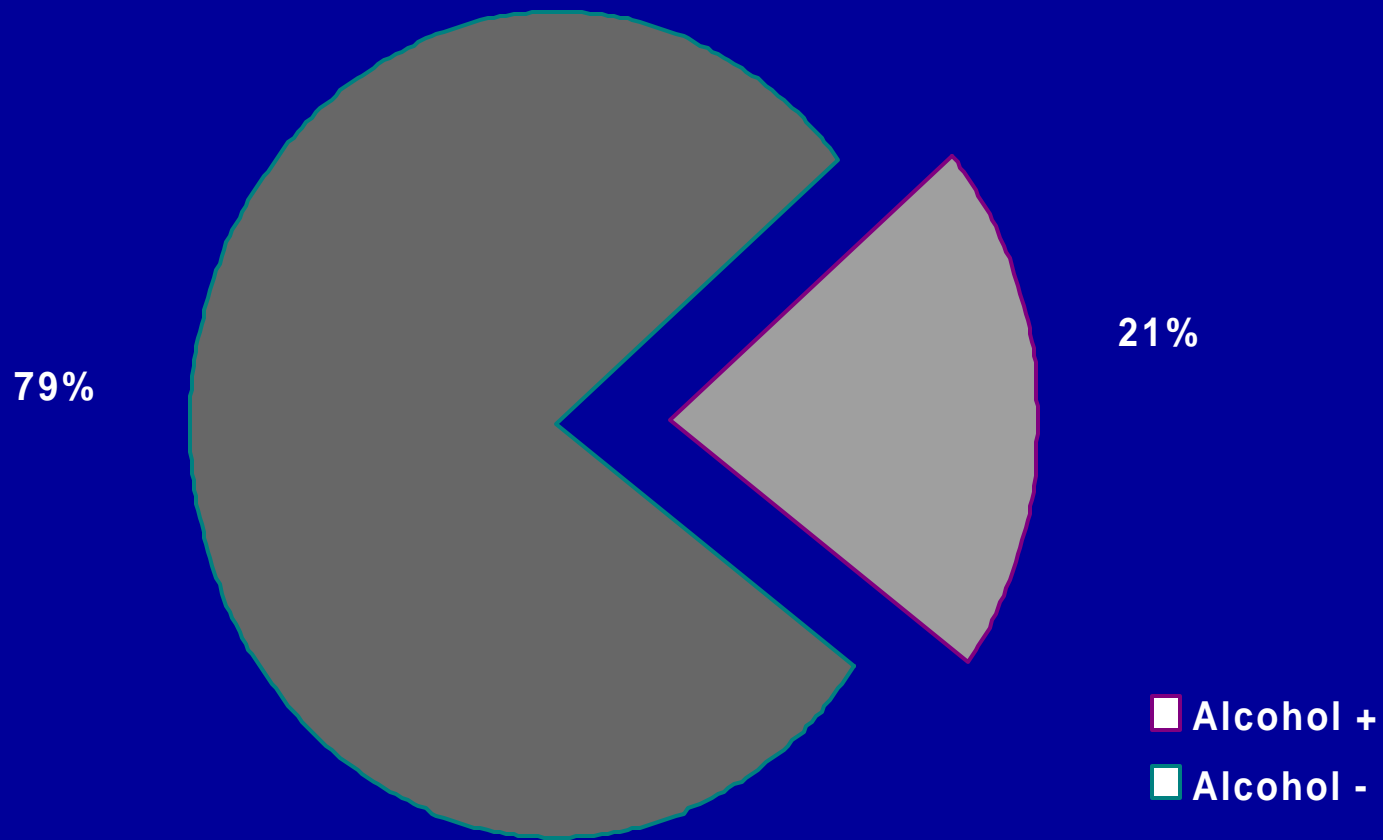


**National Institute of
Mental Health & Neuro Sciences**
(Deemed University)
Bangalore-560 029, INDIA

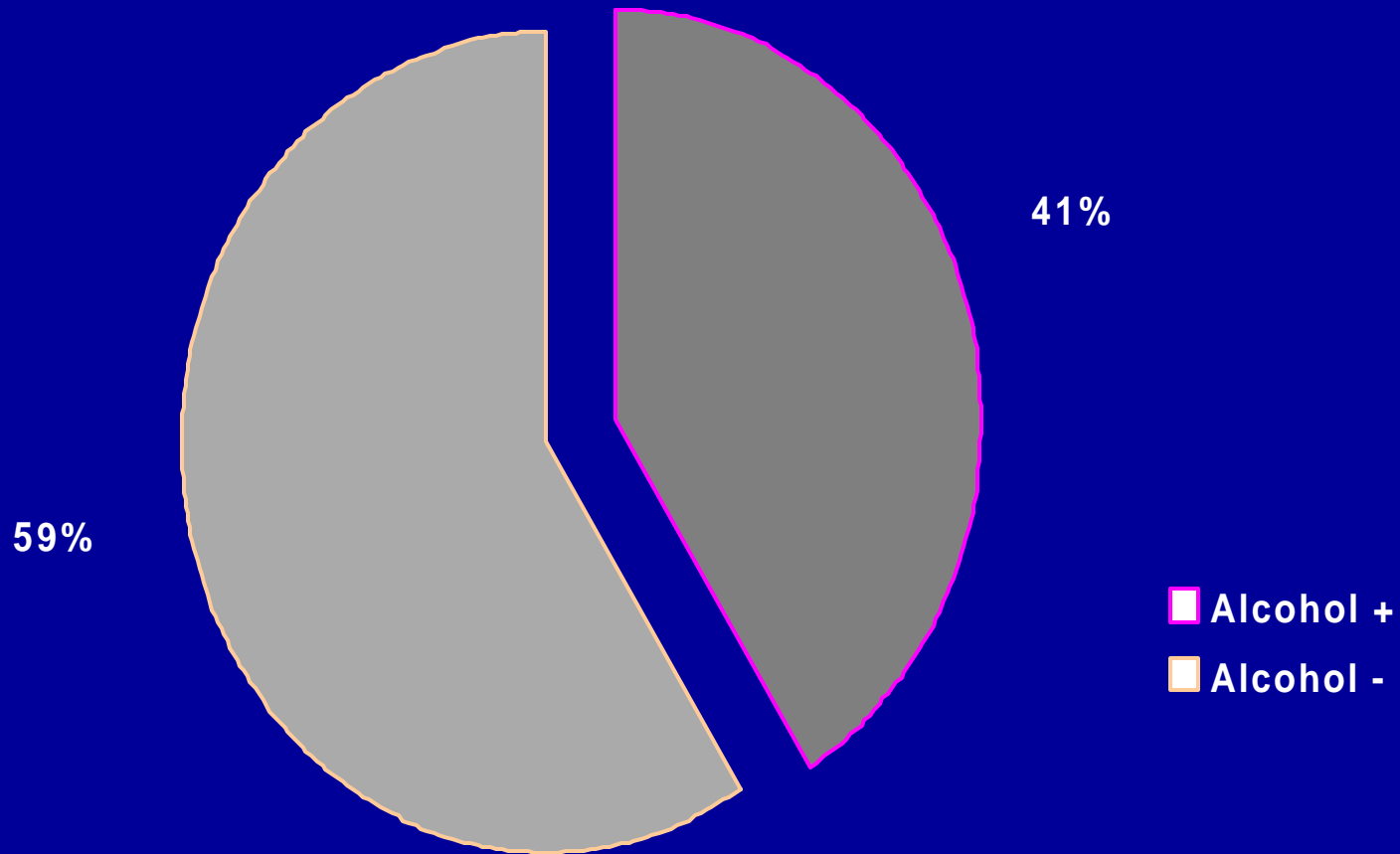
Alcohol in completed suicides (Police Records)



Alcohol in attempted suicides



Alcohol in suicides (Psychological Autopsy Series)



41% of suicides in men

Alcohol & workplace injuries

- **10 – 20 % of accidents at work place**
- **30-40% of absenteeism in industries**
- **10-20% of interpersonal violence**

Alcohol and Violence

- Nearly 50% of wife beating, child abuse, interpersonal crime, dowry deaths are related to alcohol.**
- 8% assaults resulting in brain injuries**

Alcohol and High risk Sexual behaviour

- ❖ 40% of people with alcohol dependence
 - high risk sexual activity.****
- ❖ 75% of HIV positive had heavy alcohol use**

Epidemiology of burns in Bangalore Hospital based study

- 27% of mortality & injury% of morbidity
- M : 7 :: 1 : 3
- 15 – 39 years (70%) ~~70%~~ 15 – 24 years _____ (50%)
- 90% occurred at house
- > 50 % burns in 90% of subjects
- Kerosene _____ 96% burns
- CFR _____ 82% among women
- ‘Stove burst’ commonest cause
- Specific risk factors **Cooking & living practices**
Alcohol usage among men,
Depression among women,
Suicidal tendencies,
Family conflicts / disputes,
Marriage related issues
- Causes of death **Shock, fluid loss, infections, organ damage**

Social costs of alcohol

- **Hospital costs of managing diseases**
- **Rehabilitation costs (long-term & short term)**
- **Property damage**
- **Legal & Law enforcement costs**
- **Loss in productivity**
- **Loss due to absenteeism**
- **Long term psychosocial damages**

NIMHANS study (n = 224)

- **Monthly income 1660 ± 1704.**
- **Monthly expenditure on alcohol 1938 ± 1649.**
- **Personal loans incurred 8388 ± 21,447.**
- **Work absenteeism 13 days per month.**
- **Loss of jobs 18.1% in previous year.**
 - 60% supported by others.**
 - 10% put children to work.**
 - 7% of marriages had broken down.**

NIMHANS study

- **State earnings ... 581 crores.**
- **State losses in hospital costs ... 1147 crores.**
- **State losses (all included) ... 1838 crores.**

Who pays this?

Preventive efforts

- Education & health promotion
- Regulating availability of alcohol
 - Location, timings, training sellers etc.,
 - Banning the availability (Islamic Countries)
- Licensing Systems (Beer V/s Spirit production)
- Taxation policies
- Branding liquor products (with % alcohol)
- Regulating alcohol promotion in media
- Reduction of drinking & driving (enforcement)
- Treatment strategies in hospital settings
- Changing production policies spirits to beer.

EDUCATION

```
graph TD; A[EDUCATION] --> B[Provide information. Target groups. Modify behaviour. Combined strategy.]; A --> C[Time to change. Resources. Value for information. Measurement problems. Appropriate techniques. Product of use. Negative effects.]
```

- ❖ **Provide information.**
- ❖ **Target groups.**
- ❖ **Modify behaviour.**
- ❖ **Combined strategy.**

- ❖ **Time to change.**
- ❖ **Resources.**
- ❖ **Value for information.**
- ❖ **Measurement problems.**
- ❖ **Appropriate techniques.**
- ❖ **Product of use.**
- ❖ **Negative effects.**

ENFORCEMENT

```
graph TD; A(ENFORCEMENT) --> B[❖ Fear of law.  
❖ Selective.  
❖ Measurable changes.  
❖ Effective (40-60%).  
❖ Health benefits.]; A --> C[❖ Commitment.  
❖ Reinforcement.  
❖ Visibility.  
❖ Extent of penalties.  
❖ Resources.  
❖ Community acceptance.  
❖ Compliance.];
```

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- ❖ **Compliance.**

Real Men Don't Drink & Drive

They know the hard truths about drinking & driving.



Suraksha Sanchara is only the first step in making Bangalore roads safe for all. Please Co-operate with the Police.

The Partners



GLOBAL
ROAD SAFETY
PARTNERSHIP

International Road Safety Advisor



Bangalore Traffic Police

Enforcement Agency



SASPI

Communication Co-ordinator

INTERNATIONAL CENTRE
FOR ALCOHOL POLICY

- Washington D.C.

Alcohol Policy Partner of SASPI



NIMHANS

Research & Medical Advisor

**BANGALORE
FORWARD**
b|a|t|f
Bangalore Agenda-Task Force

Drinking & Driving Project Co-ordinator

Drive Against Drunken Driving

The Approach

- **A partnership initiative bringing in the “Best Practices from around the world”**
- **PPP approach – INFOSYS donated 22 alcoholometers**
- **The team consists of :**
 - **GRSP – Road Safety Advisor**
 - **NIMHANS – Research and Medical Advisor**
 - **BATF - Project Coordinator**
 - **SASPI & ICAP – Communication Coordinator**
 - **Bangalore City Police - Enforcement**
- **A scientific approach by taking into account all the various factors that are causing the problem**

Strategies for India

- Alcohol as a major public health problem.
- Better co-ordination at governments levels
- Public health approach.
- Increasing awareness
- Rational alcohol policy
- Regulations with regard to driving, advertising & usage.
- Early detection & interventions.
- Work place / college / Society interventions.
- Life skills education.
- Increasing research.

Indian experience

- Gujarat, Andhra Pradesh, Tamil Nadu, Kerala, Haryana,
Economy V/S Health
Political interests V/S public health
- Dry days
- Policies on paper
 - No shops within 100 meters of school /
college / worship
 - Sale to minors
 - Warnings
 - Illicit production
 - price and taxation policy
 - Advertisements
- Enforcement on drinking and driving
- Lack of research
- Health care Huge investments
- NGO initiatives

NIMHANS Initiatives

- **Hospital based deaddiction services**
- **Referral services**
- **Community based programme ? Maddur Taluk**
- **Deaddiction network**
- **Training for medical officers**
- **Research focus**
- **Public awareness**
- **Rehabilitation programmes**