How many men drink?
- Proportion of males consuming alcohol in the state decreased from 24% to 20.5% between 2005-06 and 2015-16.
- Proportion of females consuming alcohol in the state is miniscule, 0.4% in 2005-06 and 0.2% in 2015-16.
- With it, the frequency of drinking also increased. In 2005, about 9% of alcohol consumers reported drinking every which increased to 12% in 2015.

Who are they?
Proportion of male consumers is higher in >21 years age group (25%), among low education groups (29%) and among the poorest income group (26%).

What do they prefer to drink? Most preferred drinks (2015-16)
As per National Family Health Survey (NFHS) 2015-16 data, Beer (26%) and Country Liquor (20%) are the most commonly used alcohol.

How much do they drink?
Alcohol consumption data is obtained at the household level from NSSO 2011-12. On an average, the self-reported mean consumption level of Indian Made Foreign Liquor (IMFL) is 1.03 litres/month/household in the state with the maximum limit reported to be 9 litres/month.
How much revenue is generated from IMFL?

- Revenue receipt from IMFL went up from Rs 70879 lakhs in 2000-01 to Rs 701307 lakhs in 2017-18 (current prices). Major surge was noted between 2009-10 and 2011-12.

What do they forgo?

Compared to the non-consuming households, alcohol consuming households are seen to spend less in Education which indicates a public health concern. Both the groups however have an equal share of spending in Food and Medical expenses.

How much state excise revenue is provided by the most consumed liquor?

Alcohol revenue consists almost entire of state’s excise revenue and 7% of State’s Own Tax Revenue in 2017-18.

Chart 4: Share of monthly HH Expenditure

<table>
<thead>
<tr>
<th>Category</th>
<th>Maharashtra C (%)</th>
<th>Maharashtra NC (%)</th>
<th>All 7 states C (%)</th>
<th>All 7 states NC (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>42%</td>
<td>42%</td>
<td>44%</td>
<td>43%</td>
</tr>
<tr>
<td>Education</td>
<td>2%</td>
<td>4%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Medical</td>
<td>6%</td>
<td>6%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Fuel</td>
<td>9%</td>
<td>8%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>4%</td>
<td>-</td>
<td>4%</td>
<td>-</td>
</tr>
<tr>
<td>Other intoxicants</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

C: Alcohol Consuming HH, NC: Alcohol Non Consuming HH

Source: Authors’ estimate.

Chart 6: Share of IMFL and Beer in overall state Excise

Share in overall state Excise (%)

IMFL | Country liquor | Beer
---|---------------|---

Tax: What is the structure of alcohol tax rate?

- In 2011-12, ED quoted was 175% of the manufacturing cost or 42/BL whichever is higher for product with alcoholic strength exceeding 8.75 proof spirit.

- All these different units of taxation are converted in per litre terms before using them for price calculation.

Different states have different taxation structure of IMFL. The Ex-warehouse prices, excise, and additional excise duties varies by states. This makes it inherently difficult.
How did we calculate Price of IMFL?

Our Pricing Methodology involves two steps:

- The first step is calculating the Unweighted Prices of IMFL for each range of EWP by summing the EWP, ED, and AED. Since, we obtained data only for the year 2019, we have deflated the unweighted price using CPI IMFL to represent them in 2011 figures. This gives us a consumer facing price for the given range of EWP.

- In the second step, we find the proportion of households consuming alcohol in that interval of unweighted price from NSSO 2011-12. The weighted average of prices from step 1 is our effective price. Weights are the proportion of people consuming alcohol in that interval of prices.

What prices we obtained from NSSO?

In order to complement and check the validity of Our Method, we also calculate the NSSO Unit prices of IMFL. NSSO prices are calculated for the year 2011 by dividing the total monthly Household expenditure incurred on IMFL with the quantity of IMFL consumed by the households during the last 30 days.

Comparing our prices and NSSO prices for 2011

Though we find the mean representative price of IMFL (Rs 446/litre) to be different from NSSO Unit Price (Rs 674/litre), it still falls within the NSSO minimum and maximum price ranges.
RESPONSIVENESS OF DEMAND TO PRICING

What happens when price or tax on IMFL increase?

- People will not start drinking
- People will drink less IMFL
- Increase in government’s revenue
- People can switch to other alcohol products

What did we find?

- For all seven states, we found that a 10% increase in price prevents 11 men out of 1000 from initiating alcohol consumption.
- For all seven states, we found that household demand is less responsive to price. For a 1% rise in prices, alcohol consumption is seen to be reducing by only 0.057%.
- For Maharashtra in specific and using NSSO unit prices, we see that for 10% rise in prices, IMFL consumption will reduce by 2.4%.

Important to note from the above points: The responsiveness of demand to price is relatively greater compared to what we have seen for the seven state figures.

- For all seven states, we found a 10% increase in TAX prevents nearly 14 men out of 1000 from consuming alcohol. For women, this value is only 5 out of 1000.
- Computation of tax as effective price minus EWP
- We also see that a 10% increase in tax reduce alcohol consumption by 1.4%.
- In understanding the relationship between tax rate and tax revenue, we see that an increase in tax rate of 10% will increase tax revenue by 8.4%.

**Chart 10: Elasticity estimates**

<table>
<thead>
<tr>
<th></th>
<th>Elasticity of participation (All 7 states)</th>
<th>Elasticity of consumption (All 7 states)</th>
<th>Elasticity of consumption (Maharashtra)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.114***</td>
<td>-0.057***</td>
<td>-0.245****</td>
<td></td>
</tr>
<tr>
<td>-0.006</td>
<td>-0.002</td>
<td>-0.002</td>
<td></td>
</tr>
<tr>
<td>NFHS</td>
<td>NSSO</td>
<td>NSSO</td>
<td></td>
</tr>
</tbody>
</table>

*** Denotes significance at 1% level.
Source: Authors’ estimate.

RECOMMENDATIONS FROM THE STUDY

1. Progressive increase in tax is required to decrease prevalence and amount of alcohol consumption over the years.
2. There should be more investment in data reporting structure so that comparable alcohol pricing, consumption and sales data across States is available.
3. State-level interventions need to be contextualized considering the patterns and types of alcohol consumed in the state.
4. Uniform and strict enforcement of minimum legal age of drinking across states is recommended
5. The strategies indicated in the WHO-SAFER framework should be implemented for added effects.
6. It is recommended to assess the relative merits of different taxation regimes so that optimal mode of taxation and distribution for alcohol is understood.

The findings, interpretations, and conclusions expressed are those of the authors and do not necessarily reflect the views of NCAER or WHO.