

# 3.1

## Tobacco Use Practices

### Tobacco smoking

Tobacco smoking has been in vogue for hundreds of years. With the spread of tobacco to Europe and other parts of the world from the sixteenth century, tobacco smoking soon gained popularity in India.<sup>1</sup> Tobacco can be smoked in a wide variety of ways.

#### *Beedis*

*Beedis* are the most popular smoking form of tobacco in India. Thirty-four per cent of the tobacco produced in India is used for making *beedis*. *Beedis* are puffed more frequently than cigarettes to prevent them from going out. *Beedis* are made by rolling a dried, rectangular piece of *tendu* leaf with 0.15–0.25 g of sun-dried, flaked tobacco.<sup>2</sup>

#### Cigarettes

Cigarette smoking is the second most popular smoking form of tobacco used in India after *beedis*. In India, cigarette use seems to be confined to the use of manufactured cigarettes; there are no reports on the use of roll-your-own cigarettes. The prevalence varies greatly among different geographic areas and subgroups such as rural–urban.

#### Cigars

Cigars are made of air-cured, fermented tobacco, usually in factories, and are generally expensive. Cigar smoking is predominantly an urban practice.

#### *Cheroots*

A *cheroot* is a roll made from tobacco leaves.

#### *Chuttas*

*Chuttas* are coarsely prepared *cheroots*. They are usually the products of cottage and small-scale industries, or are made at home. Nearly 9% of the tobacco produced in India is used for making *chuttas*. It is estimated that about 3000 million pieces of *chutta* are made annually in India. *Chutta* smoking is widespread in the coastal areas of Andhra Pradesh, Tamil Nadu and Orissa.

#### Reverse *chutta* smoking

The term ‘reverse smoking’ is used to describe smoking while keeping the glowing end of the tobacco product inside the mouth. Reverse *chutta* smoking is practised extensively by women in the rural areas of Visakhapatnam and the Srikakulam district of Andhra Pradesh. In the Srikakulam district, 46% of the 10,169 individuals surveyed smoked reverse and this practice was more common among women (62%) than men (38%).<sup>3</sup>

#### *Dhumti*

Unlike *beedis* and *chuttas*, *dhumtis* are not available from vendors but are prepared by the smokers themselves. *Dhumti* is a kind of a conical cigar made by rolling tobacco leaf in the leaf of another plant. In a random sample of about 5400 villagers in Goa, 4% were *dhumti* smokers.<sup>4</sup>

#### Reverse *dhumti* smoking

*Dhumtis* may be occasionally smoked with the lighted end inside the mouth. The overall prevalence of this form of smoking is 0.5% in Goa.<sup>4</sup>

#### Pipe

Pipe smoking is one of the oldest forms of tobacco use. The different kinds of pipes used for smoking range from the small-stemmed European types made of wood to long-stemmed pipes made from metal or other material.

### Hooklis

*Hooklis* are clay pipes commonly used in western India. Once the pipe is lit, it is smoked intermittently. On an average, 15 g of tobacco is smoked daily. *Hookli* smoking was practised by 11% of the 5227 men studied in the Bhavnagar district of Gujarat.<sup>5</sup>

### Chillum

*Chillum* smoking is an exclusively male practice; it is limited to the northern states of India, predominantly in rural areas. The *chillum* is a straight, conical pipe made of clay, 10–14 cm long, held vertically. In a survey of 35,000 individuals in the Mainpuri district of Uttar Pradesh, 28% of the villagers were found to be *chillum* smokers. *Chillum* smoking requires a deep pulmonary effort. Often, one *chillum* is shared by a group. They are made locally, are inexpensive and easily available. *Chillum* probably predates the introduction of tobacco to India and was used for smoking opium and other narcotics.<sup>6</sup>

### Hookah

The *hookah* is an Indian water pipe in which the tobacco smoke passes through water before inhalation.

In a random sample of 4859 men and 5481 women from the Darbhanga district of Bihar, 2% and 28%, respectively, reported smoking the *hookah*.<sup>5</sup> The reason given for this female predominance is that it is inconvenient for men to carry a *hookah*, whereas women remain at home most of the time. There has been a considerable fall in the reported consumption of *hookah* tobacco. *Hookah* smoking thus appears to be on the decline in India.<sup>1</sup>

### Non-tobacco smoking products

Non-tobacco smoking products are also available. An herbal cigarette (brand name *Nirdosh*) has been available for a long time. Recently a herbal *beedi* (brand name *Vardaan*)

has been launched. Ostensibly, these products are marketed as aids to smoking cessation. No scientific evaluations have been carried out and little is known about their efficacy.

## Smokeless forms of tobacco

The term 'smokeless tobacco' is used to describe tobacco that is consumed without heating or burning at the time of use. Smokeless tobacco can be used orally or nasally. For nasal use, a small quantity of very fine tobacco powder mixed with aromatic substances called dry snuff is inhaled. This form of smokeless tobacco use, although still practised, is not very common in India. No scientific report is available in the literature and therefore nasal inhalation of snuff will not be further dealt with in this chapter.

The oral use of smokeless tobacco is widely prevalent in India; the different methods of consumption include chewing, sucking and applying tobacco preparations to the teeth and gums. Smokeless tobacco products are often made at home but are also manufactured. Recently, a variety of smokeless tobacco products have been produced industrially on a large scale, commercially marketed and are available in small plastic and aluminium foil packets.

### Paan (betel quid) with tobacco

*Paan* chewing, or betel quid chewing, is often erroneously referred to as 'betel nut chewing'. *Paan* consists of four main ingredients—betel leaf (*Piper betle*), areca nut (*Areca catechu*), slaked lime [ $\text{Ca}(\text{OH})_2$ ] and catechu (*Acacia catechu*). Betel leaves contain volatile oils such as eugenol and terpenes, nitrates and small quantities of sugar, starch, tannin and several other substances.<sup>7</sup> Condiments and sweetening agents may be added as per regional practices and individual preferences. Some time after its introduction, tobacco became an important constituent of *paan*, and currently most habitual *paan* chewers include tobacco.

Tobacco is the most important ingredient of *paan* for regular users. It is used in the raw state (as in Kerala) as well as after processing. Processing, additives and names differ from place to place. Tobacco is referred to as *kaddipudi* and *hogesoppu* in Karnataka, *kadapan* in Orissa and West Bengal, and *pattiwala* in Uttar Pradesh. *Zarda* and *kiwam* are commercially manufactured varieties often used as ingredients in *paan*.

### Paan masala

*Paan masala* is a commercial preparation containing areca nut, slaked lime, catechu and condiments, with or without powdered tobacco. *Paan masala* contains almost all the ingredients that go into the making of a *paan*, but are dehydrated so that the final product is not perishable. It comes in attractive sachets and tins, which can be stored and carried conveniently. *Paan masala* is very popular in urban areas and is fast becoming popular in rural areas. Although the actual prevalence of this practice is not known, its popularity can be gauged by the production figures: according to commercial estimates, the Indian market for *paan masala* is now worth several hundred million US dollars.

### Tobacco, areca nut and slaked lime preparations

Combinations of tobacco, areca nut and slaked lime are chewed in several regions of north India, where they are known by different names.

#### Mainpuri tobacco

In the Mainpuri district of Uttar Pradesh and nearby areas, this preparation is very popular. It contains mainly tobacco with slaked lime, finely cut areca nut, camphor and cloves. In a study of 35,000 individuals in Mainpuri, 7% of the villagers used this product.<sup>6</sup>

#### Mawa

This preparation contains thin shavings of areca

nut with the addition of some tobacco and slaked lime. Its use is becoming popular in Gujarat, especially among the youth. *Mawa* use is also prevalent in other regions of the country. The prevalence of *mawa* chewing has increased tremendously in recent years. Its magnitude can be assessed from the fact that the Bhavnagar city administration appealed to the people not to litter the streets with the cellophane wrappers of *mawa*, as they clogged the city drains!

### Tobacco and slaked lime (*khaini*)

Use of a mixture of sun-dried tobacco and slaked lime, known in some areas as *khaini*, is widespread in Maharashtra and several states of north India. A regular *khaini* user may carry a double-ended metal container, one side of which is filled with tobacco and the other with slightly moistened slaked lime. A small quantity of tobacco is taken in the palm and a little slaked lime is added. The ingredients are then mixed vigorously with the thumb and placed in the mouth. In Maharashtra and Gujarat, *khaini* is placed in the premolar region of the mandibular groove, whereas in Bihar and Uttar Pradesh, it is generally held in the lower labial groove. In the Singhbhum district of Bihar, this product is often kept on the dorsum of the tongue. In a study of over 100,000 villagers in Pune, Maharashtra, 28% used tobacco–slaked lime; the practice was more common among men (52%) than women (10%). In the Singhbhum and Darbhanga districts of Bihar, 27% and 44% of the 4800 and 4856 men, respectively, used *khaini* and of the 5248 and 5481 women, 10% and 7%, respectively, used *khaini*.<sup>8</sup>

### Chewing tobacco

Small pieces of raw or commercially available finely cut tobacco are used for this purpose. Chewing of tobacco alone, however, does not appear to be very common in India. Among the 10,000 dental outpatients in Lucknow, Uttar Pradesh, and 57,000 industrial workers in Ahmedabad, Gujarat, 2.1% and 2.6% chewed tobacco alone, respectively.<sup>9,10</sup>

### Snus

Swedish snuff called *snus* is available in teabag-like pouches. The pouch can be kept in the buccal or labial groove and sucked. It is marketed in India by the Swedish Match Company under the brand name Click.

### Tobacco products for application

Several smokeless tobacco preparations such as *mishri*, *gudhaku*, *bajjar* and creamy snuff, are intended primarily for cleaning the teeth. Such use, however, soon becomes an addiction. In India, there is a widespread misconception that tobacco is good for the teeth. Many companies take advantage of this misconception by packaging and positioning their products as dental care products without explicitly stating so. The reason is that by law, oral care products cannot contain tobacco. The law is not strictly enforced and some oral care products may still contain tobacco.

### Mishri

*Mishri* is a roasted, powdered preparation made by baking tobacco on a hot metal plate until it is uniformly black. Women, who use it to clean their teeth initially, soon apply *mishri* several times a day. This practice is common in Maharashtra. In a survey of 100,000 individuals in a rural area, 22% were *mishri* users; the prevalence was 39% among women and 0.8% among men.<sup>8</sup> *Mishri* use is also prevalent in Goa.

### Gul

*Gul* is a pyrolysed tobacco product. It is marketed under different brand names in small tin cans and used as a dentifrice in the eastern part of India. In the Global Youth Tobacco Survey (GYTS), *gul* use was reported by 6% in Bihar, 3% each in Arunachal Pradesh and Nagaland, 2% each in Assam, UP and Uttaranchal.<sup>2,5</sup> In similar surveys of school personnel in several northeastern states of India, female school personnel reported significantly higher *gul* use than males; Assam (13.5% vs

0.1%), Meghalaya (25% vs 1.9%), Nagaland (6.2% vs 1.4%) and Sikkim (46.5% vs 3.9%).<sup>11,12</sup>

### Bajjar

*Bajjar* is dry snuff (also known as *tapkeer*) applied commonly by women in Gujarat on the teeth and gums. In a survey of 4844 women in Bhavnagar district, 14% reported using *bajjar*.<sup>4</sup>

### Lal dantmanjan

*Lal dantmanjan* is a dentifrice; a red-coloured tooth powder. Traditionally, it contained tobacco but after the passage of a law banning the use of tobacco in dental care products, the listing of tobacco as an ingredient was stopped. A laboratory test of five samples of red tooth powder that did not declare tobacco as an ingredient found a tobacco content of 9.3–248 mg per gram of tooth powder.<sup>12</sup> The GYTS, which focuses on school students in the age group of 13–15 years, found the prevalence of its use to be 49% in Bihar, 29% each in UP and Uttaranchal, 25% in Orissa, 9% in Mizoram, 5% in Nagaland, 4% each in Arunachal, Assam and Meghalaya, 3% in Tripura, and 2% each in Goa, Maharashtra, Manipur and Sikkim.<sup>12</sup>

### Gudhaku

*Gudhaku* is a paste made of tobacco and molasses. It is available commercially and is carried in a metal container but can be made by the users themselves. It is commonly used in Bihar, Orissa, Uttar Pradesh and Uttaranchal. *Gudhaku* is applied to the teeth and gums, predominantly by women. In the GYTS, the prevalence in these states ranged from 4% to 16%.<sup>10,11</sup> In a survey in the Singhbhum district of Bihar, 1% of men and 16% of women used *gudhaku*.<sup>5</sup>

### Creamy snuff

Commercial preparations of tobacco paste are marketed in toothpaste-like tubes. They are advertised as possessing anti-bacterial activity and being good for the gums and teeth. These products are thus used like regular toothpaste,

but users soon become addicted. This practice seems popular with children in Goa.<sup>13</sup>

#### Tobacco water

Tobacco water (known as *tuibur* in Mizoram and *hidakphu* in Manipur) is manufactured by passing tobacco smoke through water. Its use was reported by 872 persons (7.2%) among the 12,185 adults surveyed in the Aizawl district of Mizoram and 139 persons (6.5%) among the 2137 adults surveyed in the Churhandpur district of Manipur; use was similar among males and females. The frequency of tobacco water use varied from 1 to 30 times/day; in Aizawl and Churhandpur districts, 36.7% and 92.1% reported being frequent tobacco water users (more than five times a day), respectively.<sup>14</sup>

#### Nicotine chewing gum

Nicotine chewing gum containing 2% nicotine (brand name *good-kha*) has been launched as a help for tobacco cessation. For chewers, it is available in *gutka* flavour and for smokers, in mint flavour.

#### Areca nut preparations

Some areca nut preparations are chewed without the inclusion of tobacco, but this practice may be present concurrently with the use of smokeless tobacco or tobacco smoking. Alkaloids present in areca nut are known to give rise to carcinogenic nitrosamines and areca nut has recently been evaluated as a human carcinogen by the World Health Organization (WHO).<sup>15</sup> The use of areca nut by itself appears to be mildly addictive but when used with tobacco, the effect multiplies manifold. Chewing of areca nut products is very common in India; therefore, a brief resume of these products is included here.

#### Areca nut

In addition to being an ingredient of *paan*,

occasional chewing of areca nut (usually processed) alone is quite common in India, but habitual chewing is comparatively rare. Exclusive areca nut chewing was observed in 2% of 100,000 villagers in Maharashtra.<sup>8</sup> In other rural areas of India also, areca nut chewing was reported to a limited extent. In Assam, a fermented form of areca nut, known as *tamol* or *bura tamol*, is chewed extensively. This is prepared by preserving raw areca nuts together with areca leaves in an underground pit with an inner lining of straw for four months. *Bura tamol* is often infected with fungus. This product contains high levels of arecoline.

#### Supari

Areca nut is known as *supari* in several parts of north India. Some commercial *supari* preparations are made by cutting dried areca nuts into bits and roasting them in fat to which flavouring, sweetening agents and condiments are added. *Supari* is marketed in attractive aluminium foil packs, in tins and in simple paper packets. Offering *supari* to guests, especially after meals, is a prevalent and well-accepted social custom.

#### Meetha mawa

*Meetha* (sweet) *mawa* consists of thin shavings of areca nut, grated coconut, dried fruits and other sweetening agents. It is used commonly in Gujarat and similar preparations with different names are used widely in other regions.

#### Paan without tobacco

Occasional *paan* chewers generally prefer *paan* without tobacco. Chewing *paan* without tobacco, known as *tambula* in Sanskrit, is an ancient practice in India. Areca nut is an indispensable ingredient of *paan*. In addition, a wide range of chewing products including a chewing gum that may not contain either areca nut or tobacco but contains strong betel quid flavours is available in the market.

### 3.1 TOBACCO USE PRACTICES

#### KEY MESSAGES

- In India, *beedi* smoking is the most popular form of tobacco smoking.
- Cigarette smoking is the second most popular form of tobacco smoking.
- *Paan* with tobacco is the major chewing form of tobacco.
- Dry tobacco–areca nut preparations such as *paan masala*, *gutka* and *mawa* are also popular and highly addictive.
- Tobacco dentifrice is popular, especially in some areas, and children also use it.