# **Tables of reported statistics**

# Notes:

For general remarks on the tables of reported statistics presented below, including an explanation of the signs used in the tables, see the section entitled "Remarks on the statistical tables" in part one of the present publication.

#### Table I

Table I contains information on the cultivation of *Papaver somniferum* for the production of opium. Statistics of actual production are shown for the five-year period 2012-2016, while estimates of future production are shown for the two-year period 2017-2018. Statistics and estimates of opium production are expressed in terms of opium at a consistency of 90 per cent (10 per cent moisture content).

## Table II

Table II contains information on the cultivation of *Papaver somniferum* for purposes other than the production of opium, such as: *(a)* the production of poppy straw rich in morphine, thebaine, codeine and noscapine for the extraction of alkaloids; *(b)* decorative and/or culinary purposes; and *(c)* the production of poppy seeds. Statistics for actual cultivation are shown for the five-year period 2012-2016, while estimates are shown for the two-year period 2017-2018. Areas of cultivation smaller than 1 ha are not included in the table; fractions of a hectare are rounded to the nearest whole number. The data relating to the production of poppy straw (M), (T), (C) and (N) shown in this table refer only to production for the extraction of alkaloids. Data on the production of poppy straw for all other purposes are not always available, as they are furnished by Governments on a voluntary basis.

## Table III

Table III contains information on the extraction of alkaloids from opium, including yields; statistics are shown for codeine, morphine and thebaine.

## Table IV

Table IV contains information on the extraction of morphine from poppy straw rich in morphine and from concentrate of poppy straw containing morphine as the main alkaloid, including yields. Concentrate of poppy straw is presented in terms of the anhydrous morphine alkaloid (AMA) contained in the concentrate of poppy straw, expressed as 100 per cent of AMA. The data on concentrate of poppy straw and the yields in this table are therefore not directly comparable with those shown in the editions of this technical report published prior to 2006, in which concentrate of poppy straw was expressed as 50 per cent of AMA.

## Table V

Table V contains information on the extraction of thebaine from poppy straw and concentrate of poppy straw, including yields, for

the five-year period 2012-2016. The table includes thebaine manufacture from all types of poppy straw and concentrate of poppy straw that are commercially utilized for this purpose. Concentrate of poppy straw is presented in terms of the anhydrous thebaine alkaloid (ATA) and the anhydrous oripavine alkaloid (AOA) contained in the concentrate of poppy straw, expressed as 100 per cent of the respective alkaloid.

# Table VI

Table VI contains information on the conversion of morphine. The bulk of the morphine manufactured is converted into codeine, ethylmorphine or pholcodine. Table VI contains information on such conversion, including yields. Two additional columns show the quantities of morphine converted into other narcotic drugs, and into substances not covered by the Single Convention on Narcotic Drugs of 1961. The names of those drugs or substances are indicated in the footnotes to table VI.

# Table VII

Table VII contains information on the conversion of thebaine. The bulk of thebaine manufactured is converted into hydrocodone and oxycodone. Table VII contains information on such conversion, including yields. Three additional columns show the quantities of thebaine converted into other narcotic drugs, buprenorphine (which is a substance controlled under the 1971 Convention) and into substances not covered by the 1961 Convention (other than buprenorphine). Where appropriate, the names of those drugs and substances are indicated in the footnotes to table VII.

# Table VIII

Table VIII contains information on the manufacture of alkaloids contained in concentrate of poppy straw for the five-year period 2012-2016. Concentrate of poppy straw is presented in terms of the total anhydrous alkaloid content (anhydrous codeine alkaloid (ACA), anhydrous morphine alkaloid (AMA), anhydrous oripavine alkaloid (AOA) and anhydrous thebaine alkaloid (ATA)) contained in the concentrate of poppy straw, expressed as 100 per cent of the respective alkaloid.

# Tables IX and X

Tables IX and X contain information on the manufacture of narcotic drugs. Table IX, reflecting the principal narcotic drugs, is broken down by country, whereas table X, reflecting the other most common narcotic drugs, shows only overall figures. The decision on whether to place a drug in table IX or in table X is determined by two criteria that are often, but not always, concordant, namely, the quantity manufactured and the number of manufacturing countries. Accordingly, narcotic drugs manufactured in large quantities by several countries appear in table IX.

Also included in table IX is information on the manufacture of buprenorphine, an opiate currently included in Schedule III of the 1971 Convention. Pursuant to the provisions of article 16 of that Convention, the parties have an obligation to report to the International Narcotics Control Board on quantities of buprenorphine manufactured, as well as on total quantities exported and imported. The statistics on exports and imports of buprenorphine can be found in the technical report of the Board on psychotropic substances: *Psychotropic Substances: Statistics for 2016, Assessments of Annual Medical and Scientific Requirements for Substances in Schedules II, III and IV of the Convention on Psychotropic Substances of 1971* (E/INCB/2017/3).

#### Table XI

Table XI contains information relating to the production, utilization, import and export of coca leaf and to the manufacture of cocaine. The table also includes information on the amounts of cocaine obtained through purification of seized materials.

## Tables XII and XIII.1-XIII.3

Tables XII and XIII.1-XIII.3 contain information on the consumption of narcotic drugs in quantities equal to or exceeding 1 kg in one of the given years. Table XII, reflecting the consumption of the principal narcotic drugs, is broken down by country. Buprenorphine consumption data are displayed in that table. Buprenorphine is an opiate currently included in Schedule III of the 1971 Convention, covering substances for which Governments have no obligation to report statistics on consumption to INCB. The data for buprenorphine published in table XII are calculated by INCB using statistical information on manufacture, import, export and, when available, stocks of buprenorphine furnished by Governments. Conclusions on actual consumption of buprenorphine should therefore be drawn with caution. Owing to an ongoing follow-up process launched by INCB to clarify data inconsistencies with Governments, figures published for the consumption of buprenorphine for a given year may change from one edition of this annual technical report to the next as information is revised. Table XIII.1, reflecting synthetic opioids that are consumed in quantities measurable in milligrams, such as fentanyl and its analogues, and that are administered in very small doses (for example, 0.005-0.1 mg in injectable form) owing to their high potency, is also broken down by country, whereas tables XIII.2 and XIII.3, presenting other opium derivates and synthetic opioids, respectively, show only global totals.

Data for consumption presented in tables XII, XIII.2 and XIII.3 include the quantities of narcotic drugs reported by Governments as utilized in a country or territory for the manufacture of the preparations listed in Schedule III of the 1961 Convention. It should be noted, however, that some preparations in Schedule III may have been exported from the country or territory of their manufacture and consumed in another country or territory. The Board has no information on the actual consumption of those preparations in individual countries or territories, since Governments have no obligation to report on their export and import of preparations in Schedule III and should not include data on consumption of preparations in Schedule III in their estimates and statistics regarding consumption. The estimates and statistics for preparations included in Schedule III should be limited to the quantities used for their manufacture. Therefore, data presented in tables XII, XIII.2 and XIII.3, which refer to narcotic drugs that are used for the manufacture of preparations in Schedule III, should be considered with great care when comparing consumption levels of narcotic drugs. The information contained in table XIV may be more appropriate for such comparisons.

The drugs for which preparations in Schedule III exist are:

Acetyldihydrocodeine	Dihydrocodeine	Nicodicodine
Cocaine	Diphenoxylate	Norcodeine
Codeine	Ethylmorphine	Opium
Dextropropoxyphene	Morphine	Pholcodine
Difenoxin	Nicocodine	Propiram

For a precise definition of these preparations, see the "List of narcotic drugs under international control" ("Yellow List"), which is published annually by the Board.

#### Tables XIV.1.a-i, XIV.2 and XIV.3.

Tables XIV.1 and XIV.2 changed significantly in the 2003 edition of this technical report. Thus, direct comparison with the data published in the editions prior to 2003 is not possible. Table XIV.3 was introduced for the first time in the 2007 edition. Tables XIV.1, XIV.2 and XIV.3 provide information on levels of consumption of narcotic drugs using the concept of defined daily doses for statistical purposes. The term "defined daily doses for statistical purposes" (S-DDD) replaced the term "defined daily doses" (DDD), which had previously been used by the Board in its publications. The defined daily doses for statistical purposes are technical units of measurement for the purpose of statistical analysis and are not recommended prescription doses. Their definitions are not free of a certain degree of arbitrariness. Certain narcotic drugs may be used in certain countries for different treatments or in accordance with different medical practices and, therefore, a different daily dose could be more appropriate. The defined daily doses for statistical purposes indicated should be considered approximate and subject to modification if more precise information becomes available (see below).

The defined daily doses for statistical purposes used by the Board for narcotic drugs (in milligrams) are as follows:

Acetyldihydrocodeine	40
Alphaprodine	120
Anileridine	65
Bezitramide	15
Codeine (cough suppressant)	100
Codeine (analgesic)	240
Dextromoramide	20
Dextropropoxyphene hydrochloride	200
Dextropropoxyphene napsylate	300
Difenoxin	3
Dihydrocodeine (cough suppressant)	100
Dihydrocodeine (analgesic)	150
Diphenoxylate	15

Dipipanone	75
Ethylmorphine	50
Fentanyl	0.6
Heroin	30
Hydrocodone	15
Hydromorphone	20
Ketobemidone	50
Levorphanol	6
Methadone	25
Morphine	100
	30
Nicomorphine	10
Normethadone	10
Norpipanone	18
Opium	100
Oxycodone	75
Oxymorphone	10
Pethidine	400
Phenazocine	20
Phenoperidine	4
Pholcodine	50
Piminodine	100
Piritramide	45
Propiram	100
Thebacon	15
Tilidine	200
Trimeperidine	200
	200

The defined daily doses for statistical purposes for ethylmorphine, hydromorphone, ketobemidone, morphine, opium, oxycodone, phenazocine and tilidine were modified in 2003. The modifications followed the recommendations made in 2002 by an expert group that reviewed the defined daily doses for statistical purposes used by the Board for the analysis of the consumption of narcotic drugs, taking into account the developments in the most common dosages, indications and methods of administration of the narcotic drugs listed above. For example, in the case of morphine, the defined daily dose for statistical purposes was changed from 30 mg to 100 mg in order to reflect its increased consumption by oral administration, instead of by parenteral administration. A defined daily dose for statistical purposes was established for fentanyl for its use as an analgesic (there is no defined daily dose for statistical purposes for the use of fentanyl as an anaesthetic). For codeine and dihydrocodeine, two defined daily doses for statistical purposes were established to reflect the difference between their use as analgesics and as cough suppressants.

For buprenorphine, an opioid currently controlled under the 1971 Convention, the S-DDD value used in these tables is 8 mg, reflecting its use for substitution treatment.<sup>1</sup>

#### Table XIV.1

Table XIV.1 comprises nine individual tables (tables XIV.1.a-i). While table XIV.1.a. enables the comparison of levels of consumption of narcotic drugs among countries and territories worldwide, tables XIV.1.b-h present the consumption levels in each of the regions, providing the consumption data and regional and global rankings for each country and territory in the specific region, in order to provide a clearer view of the level of consumption of each country and territory relative to its region. Finally, table XIV.1.i provides an overview of consumption levels in all regions in order to permit comparison among regions as a whole.

The regional groupings used in tables XIV.1.b-i, as well as the list of countries in each of those groupings, are those used in the report of the International Narcotics Control Board for 2017 (E/INCB/2017/1). However, in this publication, territories have been included in the respective regions.

Preparations listed in Schedule III are excluded from table XIV.1, since Governments have no obligation to report to the Board on the consumption of and international trade in those preparations. Countries and non-metropolitan territories reporting consumption of a narcotic drug in quantities of less than 1 S-DDD are included in table XIV.1 (tables XIV.1.a-i) and are marked with the symbol "<<".

Table XIV.1 presents the information on the average consumption by countries/territories and regions of the eight most consumed narcotic drugs and of buprenorphine, an opioid currently controlled in Schedule III of the 1971 Convention, expressed in S-DDD per million inhabitants per day, excluding preparations listed in Schedule III of the 1961 Convention, in the three-year period 2014-2016. Average consumption levels of additional narcotic drugs (including tilidine), for which the defined daily doses for statistical purposes were adopted by the Board, are reflected in the column entitled "Others". Countries/territories and regions are ranked in order of their total consumption of narcotic drugs. Data for buprenorphine, which are based on calculations by INCB and which should be taken with caution, are not included in the total consumption and therefore do not impact on ranking (see the note regarding data on consumption of buprenorphine under table XII and XIII.1-XIII.3 above).

# Table XIV.2

Table XIV.2 presents information on the global average levels of utilization of narcotic drugs for the manufacture of preparations included in Schedule III, expressed in S-DDD per million inhabitants per day. The information is provided for the ten-year period 2007-2016. The table provides information on the global trend in the utilization of individual narcotic drugs for the manufacture of preparations in Schedule III. It can be assumed that this trend is very close to the global trend in the consumption of narcotic drugs in the form of preparations in Schedule III.

Table XIV.3 presents the data on global consumption levels of opioids, expressed in millions of S-DDD, for the 20-year period 1997-2016.

<sup>&</sup>lt;sup>1</sup>Psychotropic Substances: Statistics for 2016: Assessments of Annual Medical and Scientific Requirements for Substances in Schedules II, III and IV of the Convention on Psychotropic Substances of 1971 (E/INCB/2017/3), table IV, "Levels of consumption of groups of psychotropic substances in defined daily doses for statistical purposes (S-DDD) per thousand inhabitants per day".

Information is presented separately for opiate analgesics, synthetic analgesics and other opiates controlled under the 1961 Convention. The table also includes separate information on buprenorphine, an opioid currently controlled under the Convention on Psychotropic Substances of 1971, and on methadone, an opioid controlled under the 1961 Convention. Some opioids are used for various indications. For example, the opiates codeine, dihydrocodeine, ethylmorphine and hydrocodone can be used as analgesics, but they are predominantly used for purposes other than the treatment of pain. Buprenorphine, heroin, methadone and morphine are analgesics, but in some countries they are used also or exclusively in the substitution treatment of addicts. The statistical information provided to the Board by Governments does not enable the distinction of the quantities used for different purposes. For that reason, the table shows opiates and synthetic opioids grouped according to their main use, as reported to the Board. The distribution of opioids and preparations containing those opioids among the groups is explained in the footnotes to the

table. Global consumption levels of buprenorphine and methadone, for which no assumption on the main indication could be made, are shown separately. Heroin is included in the group of other opiates.

#### **Table XV**

Table XV contains information on global stocks of narcotic drugs. The stocks of concentrate of poppy straw are presented in terms of the total anhydrous alkaloid content (anhydrous codeine alkaloid (ACA), anhydrous morphine alkaloid (AMA), anhydrous oripavine alkaloid (AOA) and anhydrous thebaine alkaloid (ATA)) in the concentrate of poppy straw, expressed as 100 per cent of the respective alkaloid. The data on stocks of concentrate of poppy straw are therefore not directly comparable with those shown in the editions of this technical report published prior to 2005, in which concentrate of poppy straw was expressed as 50 per cent of the main alkaloid contained in it.