## **Report on WHO Questionnaire for Review of Psychoactive Substances for the 37th ECDD: Evaluation of α-Pyrrolidinovalerophenone (α-PVP)**

A total of 66 out 100 countries answered the questionnaire for  $\alpha$ -Pyrrolidinovalerophenone ( $\alpha$ -PVP). There were 62 countries which submitted the questionnaire answers through the online survey system. The remaining 4 countries submitted hardcopy answers to the Secretariat.

Of these countries, 24 countries had information on this substance.

#### LEGITIMATE USE

There were no approved medicinal products for human or veterinarian indications in any of the 24 countries that responded. Alpha-PVP is used in two countries for scientific research and drug analysis.

Three countries indicated that  $\alpha$ -PVP is used scientific research and as chemical reference standards. The source of  $\alpha$ -PVP for legitimate use in 2 countries, is through domestic manufacturing as well as importation. Two countries provided an estimated annual use, ranging from 0.025kg to 0.1kg.

Alpha-PVP was not reported to be used for any cultural, religious or ceremonial purposes in 21 countries.

### EPIDEMIOLOGY OF NON-MEDICAL/NON-SCIENTIFIC USE: USE FOR PSYCHOACTIVE PURPOSES OR RECREATIONAL DRUG USE

Alpha-PVP was reported to be misused for its psychoactive properties (as a recreational drug) in 22 countries. Routes of administration for non-medical/non-scientific purposes include oral (6 countries), injection (2 countries), inhalation (2 countries), sniffing (3 countries) and smoking (2 countries). One country provided estimates of administration use as 90% by inhalation and 10% by smoking. Identified subpopulations known to misuse this substance included young adults along with the party population.

For non-medical/non-scientific purposes,  $\alpha$ -PVP is most commonly available as powder (16 countries), followed by tablets (7 countries) and liquid (2 countries). Other formulations include an herbal mix (reported by 2 countries). Sources of  $\alpha$ -PVP for non-medical/non-scientific use include legal manufacturing (1 country), legal trade (3 countries), illegal manufacturing (1 country), diversion from legal sources (2 countries), smuggling (11 countries) and over the internet through parcel networks (2 countries).

The perception of negative health-impact due to the non-medical consumption of  $\alpha$ -PVP, was reported as either negligible (3 countries), substantial (2 countries) or serious (4 countries). Countries which reported substantial or serious impact specified that this was due to its stimulant like effects (e.g. similar to cocaine) along with its association with intoxications and deaths.

One country provided the number of emergency room/department visits related to nonmedical use as: 13 visits (2015) where  $\alpha$ -PVP was the only substance involved, 8 visits (2015) where there were other substances involved and 16 visits (2015) where it was unknown if other substances were involved. Two other countries stated that there had been hospital visits (a total of 11 in 2014 and 1 in 2015), however, it was unclear whether other substances were involved. Reported adverse effects include hypertension, anxiety, loss of consciousness, cardiac complications (e.g. tachycardia), agitation, itching, paranoia, delusions/hallucinations and mydriasis.

Estimates of mortality were provided by 5 countries, the combined data suggests that there were 2 deaths (2013-2014) associated with  $\alpha$ -PVP alone, 7 deaths (2013-2015) associated with the use of  $\alpha$ -PVP and other substances and 9 deaths (2014) where it was unknown if other substances were involved.

Alpha-PVP has proven to be dependence producing in 3 countries, although the number of dependent people or people in treatment for dependence was not provided. Two countries provided further information that there was no indication of widespread use, although another country said it was difficult to detect.

# STATUS OF NATIONAL CONTROL AND POTENTIAL IMPACT OF INTERNATIONAL CONTROL

There are 21 countries which currently have  $\alpha$ -PVP under control by national legislation. The specific legislations on which the control is based includes the medicines act (1 country), controlled substances act (19 countries), consumer protection act (1 country), criminal law act (1 country) and other specific legislation (3 countries). The scope of control includes production (18 countries), manufacturing (15 countries), export/import (17 countries), distribution (20 countries), use (12 countries) and possession (15 countries). In 3 countries the control is a temporary provision.

There have been challenges to implementing controls for 3 countries, with areas of difficulty including forensic laboratory capacity to identify the substance (1 country) and resources to implement and/or enforce (1 country). Other information provided stated that internet – related trade and lack of international control were other challenges.

Illicit activities involving  $\alpha$ -PVP include trafficking (7 countries), diversion (1 country), domestic internet sales (2 country), international internet sales (8 countries), internet sales from an unknown location (3 countries) and sales to people who use this substance (3 countries).

There were 14 to 15 countries which provided data on the number of seizures over the time period of 2013 to 2015. The total number of combined seizures of  $\alpha$ -PVP was 2828 in 2013, 3826 in 2014 and 2391 in 2015 (to date). With the total combined amount of 150.7kg in 2013, 12.7kg in 2014 and 10.1kg in 2015 (to date) seized. Tablets of alpha-PVP have also been seized, with a combined total of 2377 tablets in 2013, 2240 in 2014 and 799 in 2015 (to date).

If  $\alpha$ -PVP was placed under international control, 23 countries would have the capacity to enforce the control at the national level and that have the forensic laboratory capacity to analyse the substance for identification and purity.

#### Note on Questionnaire Analysis and Reports

An initial analysis of questionnaire answers (from 80 countries) was conducted on the 9th of November, to allow the preliminary reports to be prepared for the Expert Committee's consideration. These preliminary reports were made available on the website on the 12th of November. However, countries were provided the opportunity to continue to submit their answers until the 15th of December 2015. Following which, a final analysis of all submissions (from 100 countries) took place. This report summarises the final analysis of the questionnaires.