

ACMD

Advisory Council on the Misuse of Drugs

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Rt Hon Suella Braverman KC MP
Home Secretary
2 Marsham Street
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6 March 2023

Dear Home Secretary,

RE: ACMD Nitrous Oxide Review

We are pleased to enclose the Advisory Council on the Misuse of Drugs (ACMD) updated harms assessment of nitrous oxide. The ACMD has expedited this review in response to a supplementary ministerial commission in February 2023. We are particularly grateful to our co-opted experts who have contributed to this review and to those individuals and organisations who responded to our rapid public call for evidence.

The ACMD last considered the harms of nitrous oxide in 2015 and concluded at the time that the harms were insufficient to warrant control under the Misuse of Drugs Act 1971. The 2015 report also made a number of recommendations to strengthen understanding of supply and reduce harms. Nitrous oxide is currently controlled under the Psychoactive Substances Act 2016.

Since the 2015 advice, nitrous oxide remains a widely used drug in non-legitimate settings. The types of harm associated with nitrous oxide use have not changed and the number of deaths and demand for treatment for problematic nitrous oxide use remain low compared to many other psychoactive drugs. There have, however, been reports of an increase in neurological harms which may be associated with exceptionally heavy and persistent use of nitrous oxide. There is currently no systematic reporting on the numbers of cases presenting with long-term neurological harms in the UK. The availability of larger volume nitrous oxide canisters may be linked to higher use and greater subsequent harms in some people who use nitrous oxide.

There have also been anecdotal reports of an increase in some social harms such as drug driving and littering although there is currently no high-quality evidence available to determine the extent of these problems.

There is widespread availability of nitrous oxide from mainstream and specialist websites and other retail outlets. Some retailers and suppliers specifically sell to people who intend to use nitrous oxide for non-legitimate purposes. Nitrous oxide can be readily purchased for low cost and in large quantities from these vendors.

Summary of Conclusions and Recommendations

The ACMD has come to the following recommendations, which should be considered by Government as a package of interventions. Approaches taken by Government and local authorities on other substances, food and medicines (for example sale of solvents, food crime, diverted and counterfeit medicines) should be explored in relation to nitrous oxide. Interventions should include:

- a. Additional measures to tackle non-legitimate supply.
- b. Educating the public and healthcare professionals on the immediate and long-term harms associated with nitrous oxide use.

No single recommendation on its own is likely to be sufficient to successfully reduce the harms associated with nitrous oxide use.

1. Legislation

Based on this harms assessment, the Psychoactive Substances Act 2016 remains the appropriate drug legislation to tackle supply of nitrous oxide for non-legitimate use. There is, however, a need for enforcement of the Psychoactive Substances Act 2016 to be supported by additional interventions designed to reduce health and social harms.

Based on this harms assessment, nitrous oxide should not be subjected to control under the Misuse of Drugs Act 1971 for the following reasons:

- a. *Level of health and social harms*: current evidence suggests that the health and social harms are not commensurate with control under the Misuse of Drugs Act 1971.
- b. *Proportionality of sanctions*: the offences under the Misuse of Drugs Act 1971 would be disproportionate for the level of harm associated with nitrous oxide and could have significant unintended consequences.
- c. *Impact on legitimate uses*: control under the Misuse of Drugs Act 1971 could produce significant burdens for legitimate medical, industrial, commercial, and academic uses. The current scale and number of

legitimate uses that stand to be affected is unknown but is estimated to be large.

Recommendation 1

Nitrous oxide should remain under the Psychoactive Substances Act 2016. Enforcement under the Psychoactive Substances Act 2016 should be supported by interventions in the following recommendations on tackling non-legitimate supply, monitoring and reducing health and social harms associated with nitrous oxide. Police forces should share examples of good practice in enforcement using the Psychoactive Substances Act 2016.

Lead– Home Office, Police Forces.

Measure of outcome– Nitrous oxide to remain under the Psychoactive Substances Act 2016. Sharing of good practice by Police forces.

2. Reducing Supply of Nitrous Oxide for Non-Legitimate Use

Recommendation 2

The Home Office should work with other Government departments (and agencies) to understand and adopt successful approaches to tackling non-legitimate routes of supply, for example, in the regulation of food and medicines. Approaches should include:

- Restrictions on direct-to-consumer sales
- Restrictions on canister sizes that are not found to have legitimate uses
- Restrictions on the volume of sales that customers can purchase
- Restrictions on online sales including associated paraphernalia (for example ‘crackers’)
- Increased health warning information on packaging
- Closing down of websites selling nitrous oxide for non-legitimate uses

Lead– Home Office.

Measure of outcome– Restrictions on sales of nitrous oxide for non-legitimate uses. Reduced availability of nitrous oxide, including from online vendors, for non-legitimate use. Health warning information on packaging.

3. Reduce Health Harms

The prevalence of nitrous oxide use remained stable between 2016–2020 and then reduced significantly following the pandemic period, as reported by official statistics. There are however increasing numbers of enquiries from

health professionals to UK poisons centres. The number of people in treatment reporting problems with nitrous oxide is very low but has increased over the past 10 years.

While the number of deaths directly related to nitrous oxide remain low and few people approach drug treatment services requesting support with use of nitrous oxide, there has been a reported increase in neurological harms. These neurological harms may be associated with exceptionally heavy and persistent use of nitrous oxide.

Recommendation 3

The ACMD recommends:

- a. Universal prevention activity focused on nitrous oxide. This should include education and harm reduction interventions aimed at the public, including young people and schools, around the immediate and long-term health effects associated with repeated and heavy nitrous oxide use. For example, there could be a national campaign which could utilise appropriate platforms such as social media.
- b. Information and advice should be made available to the public and in places where nitrous oxide use is more common (for example festivals). Organisations that already provide advice to the public should review this information to ensure it takes into account the most recently published information.
- c. Local authority public health teams should ensure they are connected to local policing, community safety and wider community concerns about the availability, prevalence and use of nitrous oxide in their areas, and ensure commissioned treatment services have the necessary information and resources to support individuals to reduce the risks and harms of nitrous oxide use.
- d. Dissemination of information and guidance to healthcare staff to increase awareness of harmful nitrous oxide use, its clinical consequences and appropriate treatment protocols. Organisations that already provide advice to health professionals should review this information to ensure it takes into account the most recently published information.

Lead– Department for Education, Office for Health Improvement and Disparities, Local Government Association, Association of Directors of Public Health, Chief Medical Officers in England, Wales, Scotland and Northern Ireland, National Poisons Information Service, FRANK.

Measure of outcome– The number of sessions, interventions and people reached with prevention activity. Dissemination of updated treatment protocols to clinical staff. Availability of information to the general public. Social media campaign uptake.

4. Reduce Social Harms

There have been increased anecdotal reports that nitrous oxide is now being used while driving and that this use has contributed to road traffic accidents. It is currently difficult to meet the burden of proof for road traffic accidents involving nitrous oxide owing to challenges with testing. Currently there is also no specified limit and offence, which means police must rely on observational evidence.

There are several examples of partnership working across local authorities, charities and enforcement authorities. Although formal evaluations are limited, there is emerging evidence these partnerships have been effective in reducing the harms associated with nitrous oxide. Existing powers available to local authorities, for example Public Space Protection Orders (PSPOs) in England and Wales, have been implemented infrequently but have been reported to be effective. Formal evaluation of these strategies is needed.

Recommendation 4

The ACMD recommends:

- a. Government, Police, Trading Standards and local authorities should explore further partnership working and use of existing powers under legislation other than the Psychoactive Substances Act 2016. These include, for example, Public Space Protection Orders (in England and Wales), Dispersal Notices and Community Protection Notices.
- b. Government undertake a review of local authorities that have introduced Public Space Protection Orders to take lessons from evaluations of different local approaches.
- c. Home Office and other Government departments to consider (including unintended consequences of) providing additional powers for Police to remove, confiscate and dispose of nitrous oxide canisters and paraphernalia from people using, or are intending to use nitrous oxide for non-legitimate purposes, including in a vehicle.
- d. Home Office and Department for Transport to explore how nitrous oxide could be added to existing drug/driving protocols, noting difficulties with roadside and forensic testing.

Lead– Home Office, Department for Levelling Up, Housing and Communities, Department for Transport, Police, Trading Standards, Local Government Association, Association of Directors of Public Health.

Measure of outcome– Use of other powers through partnership working, report on effectiveness of community interventions and increased use of those that have been successful, exploration of drug driving testing.

5. Monitoring to Understand Health and Social Harms

At present there is no substantive evidence linking nitrous oxide with anti-social behaviour or widespread criminal activities. There are widespread reports of littering associated with nitrous oxide use however at present there is no substantive mechanism to monitor the environmental impact of littering associated with nitrous oxide use.

Evidence of prevalence of health harms, particularly neurological harms, are also limited. Up to date monitoring is needed.

Recommendation 5

The ACMD recommends there should be enhanced long term data collection to better understand the health and social harms of nitrous oxide. This includes additional UK monitoring of:

- a. Type, prevalence and severity of neurological, neuropsychiatric, and psychological harms attributable to nitrous oxide.
- b. Number and type of anti-social behaviour incidents associated with nitrous oxide.
- c. Number of road traffic accidents associated with nitrous oxide use.
- d. Number of deaths in the UK associated with nitrous oxide use
- e. Mechanism to monitor the environmental impact of littering associated with nitrous oxide use.

Lead– Home Office, Department of Health and Social Care, Department for Environment, Food & Rural Affairs, Department for Transport.

Measure of outcome– Increased data on health and social harms.

6. Consultation on Legitimate Uses

Nitrous oxide has many legitimate medical, commercial and industrial uses. The extent and scope of these uses in the UK is unclear, however they are estimated to be large. A consultation with industry and academia will ensure that disproportionate burdens are not placed on legitimate uses.

Recommendation 6

The Home Office should work with other Government departments (and agencies) and stakeholders to undertake a comprehensive consultation to develop an evidence base to fully understand the scope of legitimate uses for nitrous oxide. This consultation will also enable Government to identify non-legitimate routes of supply.

Such a consultation should fully determine:

- the potential impact(s) of any proposed legislative changes
- the full range of Government departments that could support action on other recommendations in this report
- legitimate supply routes, which would then identify non-legitimate routes of supply

Lead– Home Office.

Measure of outcome– Consultation with legitimate users

7. Impact Review

The ACMD requests a formal update from Government on the implementation of the 2015 recommendations in addition to a review of the impact of actions implemented following this report.

Recommendation 7

The Home Office should design a framework for the assessment of the impact of any changes and undertake a formal evaluation of actions further to this advice and from the ACMD's 2015 advice to reduce the health and social harms associated with nitrous oxide use. This review should take place no sooner than three years after any actions are implemented.

Lead– Home Office.

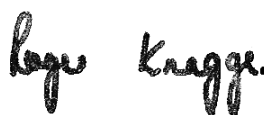
Measure of outcome– Framework for the assessment of the impact of any changes; formal evaluation of actions three years after implementation.

We look forward to discussing the enclosed report with you in due course.

Yours sincerely,



Prof Owen Bowden-Jones
Chair of the ACMD



Prof Roger Knaggs
ACMD Nitrous Oxide Working Group Chair

CC: Rt Hon Chris Philp MP (Minister of State for Crime, Policing and Fire)